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THE HOME PRACTICE OF MEDICINE

WITH

249 *pages on General Diseases*
20 *pages on Hygienic Methods*
45 *pages on Diseases of Women*
38 *pages on Diseases of the Skin*
71 *pages on Piles, Fistula, Fissures, and*
Other Diseases of the Rectum, illustrated
by most Beautiful Chromo-lithograph En-
gravings and Woodcuts

BY

JOHN WESLEY DAILY, A.B., M.D.

FORMERLY FIELD SURGEON WITH THE FIFTEENTH REGIMENT OF THE UNITED STATES INFANTRY; SURGEON OF THE GENERAL FIELD HOSPITAL, ATLANTA, GEORGIA; SURGEON OF THE GENERAL HOSPITAL AT CHATTANOOGA; SURGEON OF THE GENERAL CLAY HOSPITAL, LOUISVILLE; SURGEON OF CAMP DOUGLAS HOSPITAL AT CHICAGO; VISITING SURGEON FOR A YEAR IN THE HOSPITALS OF EUROPE; AND FOR YEARS A PHYSICIAN AND SURGEON OF A PRIVATE HOSPITAL OF BOSTON, MASSACHUSETTS

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To

MY BROTHER, DR. S. J. DAILY

To whom I am indebted for the able article on "Heredity"; who has also rendered me other valuable assistance in preparing this work for publication; who was a surgeon in various hospitals during the Civil War; who was with me, as surgeon, in the General Clay Hospital, Louisville; the General Field Hospital, Atlanta; the General Hospital, Chattanooga; and who has been my companion in sickness, danger, and distress,

This Book is Affectionately Dedicated

BY THE AUTHOR

PREFACE

TO

THE SECOND EDITION.

As a "Home Practice of Medicine" this book is intended to meet the wants of the people as no other work has ever done.

It gives unfailing treatments for more than one-half of the usual diseases; is written in a clear and condensed style; is freed from difficult and confusing medical terms; and deals with the ailments of mankind in the language of human experience — the people's experience.

It devotes seventy-one pages to Piles, Fistula, Fissures, Falling of the Rectum, and Itching Piles; describes all these diseases as fully and clearly as possible; tells their usual causes; how to prevent them; and how to arrest their development.

It also gives the methods for curing Piles, Fistula, and Fissures without cutting; without the use of ether or chloroform; without clamp, cautery, or scissors; with but little if any pain; and, usually, without loss of time from business.

While every page is as plain and definite as language can be, "Diseases of the Rectum and Anus" are made doubly clear by the finest chromo-lithograph engravings and woodcuts that ever adorned the pages of a medical work.

If the book only contained sure methods of treatment for ten diseases, — *cholera infantum*, *membranous croup*, *diphtheria*, *dysentery*, *acute rheumatism*, *pneumonia*, *dys-*

pepsia, sick headache, cramp colic, and catarrh, — its worth could never be estimated in dollars, because no one can place a moneyed value upon life, health, and human love.

The work is intended to separate the *known* and *reliable* from the *unknown* and *experimental*, and to give facts and advice that will bring joy to the hearts of millions in times of sickness and danger.

The prescriptions have all been written in plain English, and everything that is mind-confusing and time-wasting has been left out.

The habit of giving mixtures containing many drugs has always been confusing to physicians, has prevented valuable discoveries in medicine, and just as long as it lasts will be a clog upon the wheels of progress.

The use of *one* remedy to cure *many* diseases is far more reliable than the use of *many* remedies to cure *one* disease.

A portion of the work is devoted exclusively to "female diseases," including the signs of pregnancy, the management of the pregnant state, and the effects of the mother's mind upon her unborn child.

Another part is exclusively upon "skin diseases," and gives sure methods of treatment for over half the affections of the skin, including *eczema* in all its many forms, such as *salt-rheum, tetter, scall-head, and scrofulous disease of the scalp*. It also gives a never-failing treatment for *acne*, a disease through which so many young people of both sexes are ruined in personal appearance by unsightly pimples upon the face.

The treatment leaves the skin sound, by entirely removing the pimples; the red color soon fades, and the face becomes smooth, fair, and natural.

IMPORTANT EXPLANATIONS.

As this book is intended for the general public, every chapter, including all the prescriptions, has been written in plain English.

The work has not been brought out to save the money that is usually paid to doctors, but to save life and suffering.

When a star is found before the name of a disease in the index, it means that the chapter devoted to that affection gives a method of treatment that is practically sure to cure it.

In discovering modes of treatment that are sure to cure over forty diseases, the author wishes every one to know that success frequently depends more upon the proper use of food and drink than upon drugs.

In some diseases there is nothing capable of doing so much harm as water, while in others, there is nothing can do so much good.

The writer's success in cholera infantum, and almost all diseases attended with sickness of the stomach and diarrhoea, depends largely upon measuring and limiting the amount of fluid taken by the patient.

In cholera infantum there is nothing kills so many children as the reckless use of water, and strange as it may seem, the quickest way to reduce the thirst is to limit the

water to a teaspoonful every half hour, and this should always be measured, as guesswork will not answer in such cases.

In almost all diarrhœas there is constant thirst, which the patient tries to control by drinking from a half to a pint of water at a time, and this increases the diarrhœa and the thirst also.

There are no drugs that will control diarrhœa under such management, and the quickest and surest plan of treatment is to limit the amount of liquid to a tablespoonful every half hour for adults, and a teaspoonful for children.

When this plan is conjoined with the drug treatment as advised in the book, the sickness and diarrhœa will subside in fifteen hours and the desire for water will gradually cease.

Ice, for the purpose of allaying thirst, is one of the worst things that ever went into the mouth of a sick person, as the reaction following its use is so great as to cause a burning thirst that nothing but more ice will satisfy, and in a few hours the stomach is full of water, and sickness and diarrhœa follow.

In the treatment of fevers, provided there is no sickness and diarrhœa, water, both internally and externally, is frequently of the utmost importance; but in all diseases complicated with sickness and diarrhœa, water and other liquids should be limited to teaspoonful doses for children, and tablespoonfuls for adults until the trouble subsides.

In inflammatory rheumatism the patient should drink all the water he can. In all acute inflammations of joints, muscles, membranes, or organs of the body, the inflamed structures should be kept in a state of perfect rest, if possible, until the inflammatory condition is overcome.

Dyspepsia is found to exist more or less in connection

with a great many diseases, and should always be treated in accordance with the advice given in the chapter upon "atonic dyspepsia."

There are a great many maladies due to a common cause, and yet are very unlike in their symptoms ; for example : neuralgia, sick headache, common headache, cramp colic, common colic, insomnia, dyspepsia, melancholy, palpitation of the heart, and, usually, constipation of the bowels, are all due to a partial nervous exhaustion, and are all treated upon one general principle, and mainly with one drug — the extract of *ignatia*.

As some of the above diseases are found to exist with a vast number of human ailments, and as *ignatia* always cures them, that drug is prescribed in a great many chapters in the book.

It surely seems more logical to give one remedy for a multiplicity of diseases, provided it cures them all, than it is to give a multiplicity of remedies for one disease and guess at results.

The reason that *ignatia* cures so many affections is, that they are all due to a common cause — nervous debility.

In almost all inflammatory affections of an acute character, an arterial sedative, such as tincture of *veratrum* or *aconite*, should be given as early as possible in the disease.

There are three diseases — *cholera infantum*, *diphtheria*, and *membranous croup* — in either one of which a delay of one hour may prove fatal to a little patient.

Every family with children liable to these diseases should always keep a box of powders for cholera infantum, a bottle of medicine to apply to the throat in diphtheria, and a bottle of the syrup for membranous croup.

In cholera infantum, if the powders are given as directed,

and the amount of liquid is limited to a teaspoonful every half hour, *every child can be saved.*

In membranous croup, if the remedy advised in the book is given as soon as the attack sets in, and the sickness is kept up for several hours, *every case will recover*, as the sickness will arrest the formation of the membrane.

In diphtheria, if the throat is properly treated as soon as the white patches are seen, *the disease will be overcome in twenty-four hours.*

In the treatment of over forty diseases for which this work gives methods of treatment that are reasonably sure to cure, but very few disappointments will occur if all the directions are carefully followed.

THE HOME PRACTICE OF MEDICINE.



HYGIENE.

IT seems that one of the most important chapters of any medical book intended for the general public, is one devoted to those principles and habits of life that relate to health and longevity. To know how to keep well and carry the health-tinted cheeks and youthful vigor across and beyond the meridian of life's journey, is one of the most interesting problems that concerns mankind.

It is not necessarily the frosts of many winters that make us old, nor is it altogether the weight of years through which we are depressed and bowed down. Those who recklessly abandon themselves to all manner of excesses, are soon bereft of health and forced to join the silent majority before reaching the natural noon time of life. Others, wisely aware that only a certain amount of enjoyment can be crowded into the brief span of individual existence, live model lives, and keenly enjoy health and happiness at the age of eighty.

If the sporting class that lead intemperate lives by indulging in all kinds of dissipation, are truly the wicked people of the world, then that old and sometimes abused book uttered an approximate truth in saying, "The wicked

do not live out half their days." But the maxim, "Ephraim is joined to idols, let him alone," applies as well to the sporting class of our time as it did to a similar class two thousand years ago; and therefore this article will not be turned into a temperance lecture in order to reform those who have hopelessly abandoned themselves to the allurements of vice. Saint Paul struck the keynote of hygiene when he said in his letter to Timothy, "Be temperate in all things," as there is not a solitary pleasure that mankind enjoys that may not become a blighting bane to happiness when its indulgence is carried to excess.

The main question under consideration is, what to do and what not to do in order to escape disease. There is nothing surer than this: If every organ of the body is kept in a natural, healthy condition, and stimulants and excesses of every kind are avoided, the individual is in the finest possible state to resist disease.

As one of the most important factors connected with the maintenance of a healthy organism is the avoidance of stimulants, the subject of alcohol in its many forms and of tea and coffee, all of which act as a spur to the nervous system, deserves special attention.

There is nothing in the universe superior to nature — nothing that can rise above it. When a man is in a state of health, he is in the enjoyment of everything, so far as a healthy, vigorous body is concerned, that any power can give. To give him a stimulant, is to lash his entire organism into exerting, for a limited time, undue energies. There are only three conditions, as regards the natural, in which a man can exist: First, the normal, or natural; second, the subnormal, which is below the natural; and, third, the supernormal, which is for a limited time above

the natural. There is only one way by which to force the human system into a supernormal condition, and that is by a stimulant. What follows? Let us see. One of the eternal principles in the economy of nature is, that a corresponding degree of depression always follows the exhilarating effect of a stimulant. For example: If a stimulant raises the energy of the organism twenty-five per cent above the normal, it will certainly fall twenty-five per cent below the normal when the effect of the stimulant ceases; and, what is more, the stage of depression will be fully as long as that of the exaltation. The above being the effect of a stimulant, what good can it accomplish under such circumstances? None whatever. Does it do any harm? It certainly does. Anything that interferes with nature and changes the functions of the physical body from the *natural* to the *unnatural*, can do nothing but harm.

TEA AND COFFEE.

THESE two drugs are intensely stimulating to the nervous system, and the harm they are capable of doing when used as beverages, depends, first, upon the quantity taken, and second, upon the temperament of the individual. The following is an exact quotation from the United States Dispensatory, a standard work on the preparation and action of drugs: "Coffee, if taken in large quantities, leaves, after its first effect, a degree of nervous derangement or depression equivalent to the previous excitement; and its habitual employment is well known to injure the tone of the stomach, and frequently to occasion troublesome dyspeptic and nervous affections. This effect is peculiarly apt to take place in persons of susceptible ner-

vous systems and in those of sedentary habits. We have repeatedly known patients who have suffered with headache and vertigo to get rid of them by abstaining from coffee."

The action of tea upon the nervous system is very similar to that of coffee, and like the latter, is liable to cause wakefulness when taken at night; but owing to the delicious taste and fascinating odor of coffee, it is used twenty times as much as tea and therefore capable of doing that much more harm to mankind.

The author, in devoting a great deal of time and study to a large number of diseases associated with dyspepsia and largely depending upon it, had occasion to study closely the causes of chronic indigestion, a disease known to doctors by the familiar name of "atonic dyspepsia." There is scarcely anything more obvious to the intelligent reader than this: that any drug having the power, when taken in moderate quantity for a limited time, to favorably stimulate digestion, also has the power to ruin digestion when taken in large quantities, or during a long period of time in less quantities. A knowledge of these facts caused the author twenty-five years ago to put a close watch upon coffee as a leading factor in causing dyspepsia and its great train of associated diseases.

The manner in which coffee enfeebles digestion and develops those obstinate dyspeptic conditions, such as sick headache, painful colics, constipation, hypochondria, insomnia, and many other maladies, seems to be as clear as a cloudless noonday, and it is hoped it will be equally clear to the reader. The eternal principle that should govern and limit the use of all stimulants is this: A corresponding period of depression always follows the exhilarating effect of a stimulant.

If a strong cup of coffee is taken at breakfast, a feeling of moderate and rather pleasant excitement lasts almost until the next meal. For this reason dyspeptics who limit their coffee drinking to the morning meal, have but little trouble, comparatively, in digesting that meal, because the nervous system that presides over the digestive functions, is under a constant spur for hours. By noon, however, the stimulant has died out and a state of depression in which the nervous energy drops as far below the natural as the coffee raised it above, is established.

Before taking the coffee, the man is in a normal or natural condition. For hours after taking it, he is in a super-normal or unnaturally excited state, and by dinner time, when the stimulant has given out, he is in a subnormal or depressed state. From the foregoing it seems evident that any stimulant that forces the digestive system to the exercise of undue energies, in order to digest the morning meal, impairs the power of the stomach and bowels to digest the subsequent meals of the day. Unfortunately for mankind, coffee drinkers do not limit themselves to one or two cups at breakfast, but drink it at the other meals as well. Let us see what results from the constant use of a nervous stimulant of any kind. The muscular system when forced to work too hard or too long, gets tired and sooner or later becomes exhausted. The same is true, exactly the same, of the nervous system, and a stimulant like coffee bears about the same relation to the nerves that the lash of the task master of the South did to the muscles of the slaves in the cotton fields, and therefore, if coffee is taken three times a day or even once per day in large quantity, a state of partial nervous exhaustion is almost sure to follow, and with it one of the worst forms of dyspepsia imaginable.

In such cases the disease is called "atonic dyspepsia," as atony means debility, and is caused by *nervous debility*. A better term would be coffee dyspepsia, as it is essentially different in many respects from dyspepsia from other causes. One of the most distressing characteristics of coffee dyspepsia is the frequent and terrible headaches that accompany it, especially the "sick headache."

It is well to state in this connection that most all coffee drinkers suffer from headache more or less, and usually the trouble is moderate or severe, according to the amount of coffee taken.

EFFECT OF STIMULANTS UPON THE DIFFERENT ORGANS OF THE BODY.

UNDER the influence of an excitant, the brain and nerves work harder, the stomach secretes more juices, digestion is more complete, the liver secretes more bile, the pancreas more pancreatic juice, the kidneys more urine, the peristaltic or worm-like action of the bowels is increased, the heart beats faster, the lungs fill and empty themselves quicker, the state of general vitality is higher, and the individual actually lives faster and wears out quicker than he otherwise would; but the most unhappy effect of a general stimulant is, that after its action ceases, every organ of the body drops down to a sluggish or subnormal state and waits to be aroused by another stimulant. A physic is usually a local stimulant or irritant, and when used for constipation, is as irrational as it is harmful. The bowels become accustomed to its use and simply wait for it.

Before the horse cars were taken from Tremont Street, in the city of Boston, it was found hard for the teams to pull

a car filled with passengers up one of the steepest grades. In all such cases the car had to wait until an electric car came up behind and boosted it over the hill. The horses soon learned that the electric car would do the work for them, and therefore they would wait at the foot of the grade until they could hear the buzzing of the electric wheels, before they would offer to pull. This illustrates a principle that runs through the entire animal economy, namely: That every physical organ when stimulated for any length of time, becomes blunted in its susceptibility to the natural nerve forces and waits for an artificial excitant. As constipation is treated at length in a chapter devoted especially to that subject, it cannot be considered further in this connection than to say this: Never take physic for constipation. If you do, the bowels will drop into the habit of waiting for it, and in that way your trouble will gradually increase.

There is a natural diminution of nervous intensity as shown in its effect upon most of the organs as one passes from childhood to adult life, and therefore a general tendency to constipation as we grow older. For this reason anything that has an intrinsic tendency to dull or lessen the susceptibility of the bowels to a nerve force that is gradually diminishing as the frosts of other winters come upon us, should be carefully avoided.

TOBACCO.

THIS "weed" is used by millions and millions of people, and is condemned by almost every one, including those who use it. Its active principle consists mainly of nicotin and a volatile oil — empyreumatic oil. Strong tobacco con-

tains from five to eight per cent of nicotin, which is a deadly poison. Tobacco, like alcohol, is an active stimulant in its primary effect, while its secondary action is that of a prostrating sedative, especially if carried to the point of producing sickness of the stomach. The most harmful way in which tobacco is ever used is by chewing. In addition to the fact that tobacco chewing is disgustingly filthy, that the chewer is compelled to be spitting constantly, that his breath is extremely offensive, and the spittoon is a foul, odor-breeding thing that is not fit to be in any parlor, the drug often has a terrible effect upon the nervous system and organs of digestion. Almost all of the so-called heartburn from which tobacco chewers suffer, is from tobacco. The tendency of tobacco chewing, even when it does not seriously impair the general health, is to reduce the flesh from ten to fifteen per cent. For example: A person whose normal weight is one hundred and fifty pounds before using tobacco in this way, will drop off from fifteen to twenty pounds from its continued use. A forced reduction of flesh from tobacco, anti-fat, or any other drug, is almost always at the sacrifice of health and vitality.

SMOKING.

THE first effect of a cigar or a pipe is to quicken the heart's action and maintain, during the smoking hour and for some little time after, a supernormal condition of the nervous system. Since the nerve forces are spurred by the "weed" to an unnatural intensity, it is often claimed by the friends of the pipe and cigar that smoking after meals favorably affects digestion. But it must ever be remembered that the nervous system is capable of exer-

cising a certain definite force, and that any artificial means employed to develop a physical force that does not actually exist, is at the sacrifice of enduring energy. There is nothing in man superior to himself, nothing that can rise above his natural organic forces. If he could be hastened in his speed like a locomotive, only using a drug instead of steam, he would at once cease to be a physical being and become a machine. Tobacco, in all the forms in which it is used, belongs to the catalogue of stimulants, and, like alcohol, tea, and coffee, quickens the heart's action and forces the entire body into a condition that is supernormally energetic for a limited time, to be followed by a corresponding period of depression. It is not possible for an unnatural stimulant—and all drug stimulants are unnatural—to raise the average energy of the nervous system the thousandth part of a unit. The only effect of stimulants is to make the human organism run irregularly, somewhat like a Kansas windmill, that only runs when the wind blows.

While tobacco is a depressing and devitalizing agent, and while smoking, chewing, and snuff rubbing are all debilitating, it must be admitted that some persons establish a perfect tolerance for the drug and use it during a long life with impunity.

A discharging ulcer upon the body is a constant drain upon the system, and yet nature arouses her energies, in many cases, so as to supply an extra amount of recuperative power to support the ulcer and a healthy and vigorous organism. It is probable that through the elastic and conservative principles of nature the otherwise disastrous effects of the tobacco habit are occasionally overcome and health and longevity maintained.

A century ago, a pseudo-philosopher, ignorant of the principle that action and reaction are equal, placed a great bellows in the stern of his sailing-boat, in order to blow against the sails and make fair headway during a dead calm. As part of the artificial breeze went wide of the mark and was wasted, the action was less than the reaction, and the craft moved in the wrong direction, that is, backwards. And so it will ever be with every man who attempts to force himself into an unnatural gait by using stimulants. He will go in the wrong direction.

The recoil of a gun is always equal to the force of the discharge in the other direction, and whenever a man can escape the recoil of a stimulant, that eternal principle of nature, that action and reaction are equal, will be destroyed, and men will be able to lift themselves over the fence by their own bootstraps.

DIET.

THERE seems to be some excuse for the maxim: "One man's meat is another man's poison," as some persons are distressed by almost everything they eat, while others eat with impunity anything they can swallow, and for this reason no absolute rule can be given for the guidance of persons in a state of health except this: Every man should use those articles of food that he has found by long and careful experience best suited to his particular case as regards comfortable digestion, regularity of the bowels, and the maintenance of a vigorous body.

The treatment of constipation by coarse bread and other articles of rough food is to a great extent a failure, as it is a physic in disguise and acts by irritating the lining membranes of the stomach and bowels.

As the health and comfort of almost every individual depend upon the regular movement of the bowels, the subject of constipation has to be considered to some extent in connection with diet, as the dietetic treatment of the trouble in connection with other hygienic measures is the one upon which every person must mainly depend.

The best treatment that the author has ever known for constipation is a fruit diet. It consists in the abandonment to a great extent of meat, and eating fish, bread and butter, and an abundance of fruits and vegetables.

The reason that fruits often fail to overcome constipation is, that the fruit régime is not rigidly carried out. Eating an apple now and then when one happens to feel apple-hungry, or taking an orange at bedtime, does no good. If three or four fair-sized apples are eaten raw during the day and suitable fruits and vegetables taken at meals, the bowels will soon begin to move easily and will gradually, except in the very worst cases, get to moving every day. Fruits containing seeds like raspberries and blackberries are bad and should not be eaten by persons subject to constipation. The same is true of grapes if the seeds are swallowed. A great many cases of fatal appendicitis are caused by swallowing such seeds. The use of powdered magnesia as a physic is equally dangerous, as it is liable to cause obstinate obstruction if not appendicitis.

Apples, peaches, oranges, plums, and lemons are the best fruits to be eaten. When the peach season is over, the best dried peaches, when properly stewed, are calculated to favor a natural action of the bowels. Prunes are simply half-dried plums, and are also good, but inclined to act like a physic and cause griping pains when eaten in excessive quantities. They are fine, however, to eat

in connection with other fruits. While the fruit diet is being followed, such articles as cheese and eggs and such others as are known to be constipating, should be avoided.

CLOTHING.

WHEN the writer of a medical book brings forward ideas in regard to clothing or anything else that are in open conflict with the established customs of the people, he is called a crank or fanatic. The author has not sought to popularize this work by catering to the pet notions of any one, but, on the other hand, has tried to point out many of the customs of living that are radically and deplorably wrong. One of the greatest mistakes of this generation, especially among the rich, is the habit of clothing children so warmly that proper exercise in the open air during the winter season is almost impossible.

When a boy is fettered with overshoes, and then wrapped up from his throat to his feet, almost, with an overcoat, he doesn't run to school as is natural with children, but walks and acts like a man. In many cases such boys are admonished never to go out of the schoolroom without overshoes and overcoat. He cannot indulge in any games or romps with boys that are properly clad, because he cannot run. He suffers for want of the vigorous thrill of the heart and arteries that childhood ever demands, and for want of which physical development is impeded.

Such boys are usually slender, with soft, flabby muscles, are decidedly effeminate when fully matured, and not very strong intellectually. They correspond to the "feather-bed soldiers" of the late war. In childhood the heart beats a third faster than in adult life, the breathing is

faster, the vitality naturally greater, much more physical heat is generated, and the power to resist cold much greater, and therefore they do not need the clothing that men and women do. The muscular and organic systems must be developed during adolescence, — during the main period of physical and mental growth, — and anything that seriously impedes the motion of the body seriously interferes with proper development.

THE SKIN.

THIS is one of the most extensive and also one of the most important organs of the body. It covers and protects the veins and capillaries and also various glands. It is intensely endowed with nerve fibres, and is therefore a highly sensitive organ. This seems to be a wise provision of nature, as the skin, being an immense envelope enclosing the human body and exquisitely sensitive in every part, is practically a force of sentinels guarding the individual while he sleeps.

Any one who has ever been aroused from sweet and pleasing dreams by a bedbug meandering over his body at midnight, can realize how wonderfully sensitive the skin is. The membranes lining the cavities of the body are a continuation of the skin, and, like the latter, are depurating organs, or, in plainer terms, organs through which innumerable poisonous elements are eliminated from the body. The skin is endowed with a multiplicity of glands of two kinds, — sweat glands and oil glands. The latter are at the roots of the hair and contribute to hair nourishment and growth. The sweat glands exist in some parts of the skin to the number of two thousand or more to the square

inch, and rising from them like church spires, are little tubes or ducts that conduct the water from the secreting glands to the surface of the skin. These tubes are known by the common name of "pores," and the water that they bring to the surface under the name of "sweat," or "insensible perspiration," gradually evaporates, and in doing so, lowers the temperature of the body.

In this way persons are protected from the otherwise insufferable heat of summer. The amount of water given off by the skin reaches, in rare cases, a half gallon in twenty-four hours. That is called "sweating" or "perspiring," but when the amount of water exhaled by the skin is only a pint or a little more, it is called "insensible perspiration."

It is said — and the statement seems reasonable — that if a coat of varnish be applied to the entire skin, that a person would almost perish from ordinary summer heat, as in that case no water could come out of the "pores" and lower the heat of the body by evaporation. All these things teach the importance of keeping the skin in a clean, healthy condition so the sweat ducts will not be closed. This leads us up to the subject of bathing.

As to how often a person of ordinary vigor and strength of body should bathe, is a question not easily answered, as a great deal depends upon occupation. Coal diggers bathe every night, year in and year out when working. With them it is a necessity, and they are exceedingly healthy. The question, How often should a person bathe? can only be answered one way, and that is this: Often enough to keep clean.

EXERCISE.

IT is one of the immutable principles of nature that every physical organ that is not used, gradually becomes atrophied or shrunken greatly in size so as to be worthless. If a leg or arm is tied up for years and not used, muscular atrophy or shrinking away of the muscles takes place, and that member of the body becomes forever useless; and if some physical organ in a certain animal species becomes useless for a great many generations on account of the changed conditions of that species, the organ will entirely disappear. There is a deep and rapid stream in Mammoth Cave, Kentucky, that contains a great many fish. The light of day never enters the cave, and for that reason the fish never have an opportunity to see, even if they had eyes. Nature is ever conservative, and therefore never creates and maintains organs that are not needed. For this reason the fish of the cave are "stone blind." When man, in the infancy of the human race, was an arboreal animal or "cave dweller," he had muscles in his ears like those of a horse, so that he could turn his ear in any direction and gather and intensify the rustling sound of a leaf and be warned of approaching danger. In civilized life he is not exposed to such dangers, and therefore has no use for such muscles, and they have almost ceased to exist. Nature never makes any half hinges, because they would be useless. She never maintains organs that serve no purpose in the natural economy, and therefore all the organs of physical beings must be used or they will perish.

That style of exercise that is used solely for the promo-

tion of health, is called "calisthenics," and may consist of exercising with Indian clubs or dumb-bells, or going through the extensive routine of an ordinary gymnasium every day, or of walking or running. There is one very important principle that should govern every one in the matter of taking exercise, and that is this: The condition of the mind when exercising must always be considered. If the character of the exercise is distasteful to a person, there are two reasons why it will fail to be of much if any benefit to him. In the first place, he will probably abandon it before it amounts to anything. In the second place, the dissatisfied state of his mind is liable to do him more harm, especially if he is sick, than the exercise would do good. All exercise should either be pleasant in itself or carry with it some ultimate object or hope that is pleasant to contemplate. If a person feels that some good or pecuniary gain will be accomplished aside from the promotion of health, the exercise naturally becomes pleasant and satisfying to the mind, and in that way favors digestion and does much good. It is a notable fact that persons who suffer from dyspepsia, lung disease, and other depressing affections, are in a subnormal state so far as vitality is concerned and very little inclined to exercise at all. It is best for such patients to place themselves under conditions that compel them to exercise in the open air. If they have a long walk to and from their place of business, it is all the better for them. Walking calls into use almost all the muscles of the body, more or less, and in that way is capable of much good.

EFFECTS OF THE MIND UPON THE BODY.

THE influences of the mind upon the body manifest themselves in a multiplicity of ways. When a person with a usually sunny and pleasant face takes on a corrugated brow, with wrinkles about the eyes, and has a "far away" or vacant look, such phenomena are to be hailed as the outward expression of a deeply seated grief, anxiety, or dissatisfied state of mind. In such cases there is a constant mental effort to overcome the trouble, whether domestic or otherwise, and this gives rise, in many cases, to a state of mental abstraction that renders the individual somewhat oblivious to his surroundings. An unhappy state of the mind or an unduly anxious condition cannot exist for a considerable length of time without seriously affecting the general health.

When a person is suffering from pain or infirmities that are wholly physical, a haggard and wrinkled appearance of the face may exist, but that total abstraction that shows the mind to be struggling with intricate and distressing questions is absent. All these things have to be considered in dealing with disease and also in our efforts to prevent it.

This may be assumed as a principle that is immutable: A reciprocal relation between the mind and body always exists; that is, the condition of the body always affects the mind, and the condition of the mind always affects the body. Trouble is a mental affliction, and sooner or later develops a physical one. The gravity of the physical derangement is very liable to be in direct proportion to the extent and severity of the mental perturbation. Busi-

ness difficulties and embarrassments are health-destroying, nerve-exhausting, peace-disturbing, and sleep-preventing afflictions that are familiar to almost every business man who has passed the meridian of life. They are also distressingly familiar to the physician in general practice, as he is usually confronted with the business complications of others, as well as his own. The friction with customers, the constant attention and mental strain that business life requires in order to succeed, are all wearing and depressing upon the nervous system, and yet are of minor importance compared with the distressing anxiety that arises from inability to meet financial obligations.

Following all these, and closely related to them, comes the grim and terrible nightmare of the closing century — a dread of financial failure and bankruptcy.

Happily for us all, nature has provided the human family with a redundancy of nerve energy, so as to afford a supply for ordinary contingencies; but under long and severe mental strains, the supply gives out and nervous prostration follows: In such cases the nerve forces are inadequate to properly stimulate any of the organs of the body, digestion is greatly impaired, the blood is impoverished, color fades from the cheeks, and the general trend of the patient is to a lower state of vitality, because the blood, diminished in quantity and defective in quality, cannot nourish and properly excite the brain and nervous system. This further illustrates the correlation between the mind and body.

In cases as above outlined, the sphere of medicine is very limited, as the primary and principal trouble is mental, and an effort to restore the patient to health and vigor without removing the exciting cause of diseased

conditions is like giving pills and powders in order to get rid of a thorn in the flesh.

There are two principal sources of mental affliction that concern mankind, and the physical derangements they entail are as widely different as the origin of the mental disorders. One is business trouble, and develops that wide range of diseases known as dyspeptic and nervous. The other is the sorrow of all sorrows and trouble of all troubles, — domestic discords and wrangles that finally separate husband and wife, — and also disappointment in love affairs.

In the mental afflictions incident to business complications and overwork, the expenditure of nerve force is greater than the daily income, and physical bankruptcy must necessarily follow sooner or later. But the rapidity with which business men recover from financial disaster and regain their physical and mental equilibrium, is wonderful. Dear as money is to us all, the cases are rare in which men fail to recover from the state of nervous exhaustion that bankruptcy usually brings.

But the tenderest and most sacred chords that ever thrill the human heart are those of love and affection between husband and wife or between lovers. When these are permanently severed, a feeling of heartrending disappointment and mortal anguish from which there is no recovery often takes possession of the mind.

Any influences that permanently reduce the flesh and vitality of a person have an intrinsic tendency to establish in that person a liability to disease, especially to consumption. When a young lady in whom there is but little, if any, predisposition to consumption, is disappointed in her affections to the extent of being heartbroken, the color

usually fades from her cheeks, she loses flesh, her digestion suffers, and in a few months she is liable to pass into a state of decline, — another name for consumption ; and when she has passed away her friends truthfully say : “ She died of a broken heart.”

Almost every one is familiar with such cases. Unfortunately the millions of eyes that are steeped in tears wrung out by the pangs of blighted hopes in love matters, are not limited to the state of celibacy, as many young people of both sexes are ruined by following the heroes and heroines of plays and love stories, and in that way led to indulge hopes with reference to married life that can never be realized. When a young lady who has lived an ideal life and pictured in her morbid imagination an ideal husband and an ideal home, is confronted with the cares and privations of a poor man's home, to which are usually added the responsibilities and anxieties of motherhood, the realities of her young life seem so strangely unreal and disappointing to her that she is heartbroken. In this way the seeds of disappointment are sown, and domestic inharmony and grief with all their painful complications are the fruits.

GENERAL DISEASES.



DYSPEPSIA.

OTHER names : Indigestion ; atonic dyspepsia ; heartburn ; pyrosis.

As the digestive organs are really the blood factory of the human body, from which the entire organism is nourished, from which the system is repleted and sustained during the multiplicity of diseases to which humanity is liable, it has been thought proper to deal with this disease extensively in the opening chapter of the book, as there is scarcely a disease of any gravity, acute or chronic, in which the digestive functions are not more or less impaired.

Dyspepsia is known by several names as follows : Indigestion, heartburn, pyrosis. The term employed by physicians, is atonic dyspepsia, the word "atonic" meaning debility, as almost all cases of chronic indigestion are due to a debilitated state of the nervous system.

Symptoms. — Appetite irregular or lost, digestion painful and difficult, a heavy, disagreeable feeling in the stomach after meals, sour stomach from the decomposition of food, heartburn, flatulence, and sometimes vomiting of partially digested food, frequent belching of burning fluid, usually called "waterbrash," the tongue broad and flat and generally pale. The bowels are constipated as a general thing. There is drowsiness after meals, and sometimes patients have great difficulty in keeping awake, while at night they

are afflicted with wakefulness, usually called "insomnia." The memory is often defective, there is more or less headache, and in many cases that distressing complication known as "sick headache." This is very common with dyspeptics, the attacks often occurring every week, while in others every two weeks or at wider intervals. The regularity with which these paroxysms occur is hard to account for, as they are seldom if ever due to malarial influences. Many cases have been known to the author in which sick headache occurred on a certain day of every week without an exception for several years.

There are several varieties of dyspepsia. First, we have the nervous dyspepsia that affects business men of the nervous-sanguine temperament.

Such men eat rapidly, do not properly masticate their food, and use too much liquid to wash it down. Second, we have the flatulent dyspepsia afflicting hysterical women, and attended with great accumulation of gas in the intestines.

The third variety is acid dyspepsia, and is caused by eating coarse, greasy food. The fourth is called irritative dyspepsia, and is characterized by sickness of the stomach, and more or less vomiting, the tongue being small and red.

Termination. — With reasonable care in reference to diet and other habits of living, including the avoidance of stimulants, the worst forms of dyspepsia are curable.

Treatment. — One of the most important things in connection with the treatment is to use such articles of food as the patient, by long experience, has found best adapted to his particular case, so far as easy and painless digestion, regularity of the bowels, and maintenance of a vigorous, healthy body are concerned. It is best to be regular in eating both as regards time and quantity of food taken.

Many dyspeptics have irregular appetites. Sometimes they have scarcely any, and therefore eat but little. This condition may continue for several meals, during which the system becomes run down, and finally calls loudly for nourishment, the appetite being morbidly increased. The patient is then liable to eat enough at one time for three or four meals. As he cannot digest that much, he is seized with colic pains of the stomach and bowels, severe sickness of the stomach, and other disorders associated with acute indigestion, the condition lasting for several days. It is obvious from the foregoing that the life of the chronic dyspeptic is a series of ups and downs due in a great measure to irregularity in eating. Hence, the following general advice is given to all dyspeptics :—

First, use the kind of food that is nourishing and most easily digested.

Second, take plenty of time for chewing, and use but little fluid with meals.

Third, for reasons to be hereafter mentioned at length, avoid the use of stimulants. Use a due amount of exercise, and for this reason it may be advantageous to live some distance from your place of business, so as to compel a regular amount of walking every day.

Fourth, all exercise for the purposes of health should either be pleasant in itself or have associated with it some ultimate purpose that is pleasant to contemplate.

At the close of the treatment of this disease a single drug will be given, which, conjoined with good hygienic measures, will cure almost all cases of dyspepsia. But before entering upon the drug treatment it is desirable that all readers, and especially all dyspeptics, have a correct understanding of the unfavorable manner in which

stimulants of all kinds, including tea and coffee, affect the organs of digestion.

Under the influence of an excitant, the brain and nerves work harder, the stomach secretes more juices, digestion is more complete, the liver secretes more bile, the pancreas more pancreatic juice, the kidneys more urine, the peristaltic or worm-like action of the bowels is increased, the heart beats faster, the lungs fill and empty themselves quicker, the state of general vitality is higher, and the individual actually lives faster and wears out quicker than he otherwise would ; but the most unhappy effect of a general stimulant is, that after its action ceases every organ of the body drops down to a sluggish or subnormal state and waits to be aroused by another stimulant.

There is scarcely anything more obvious to the intelligent reader than this : That any drug having the power, when taken in moderate quantity for a limited time, to favorably stimulate digestion, also has the power to ruin the digestive functions when taken in large quantities, or during a long period of time in less quantities. A knowledge of these facts caused the author twenty-five years ago to put a close watch upon coffee as a leading factor in causing dyspepsia and its great train of associated diseases.

The manner in which coffee enfeebles digestion and develops those obstinate dyspeptic conditions, such as sick headache, painful colics, constipation of bowels, hypochondria, insomnia, and many other maladies, seems as clear as a cloudless noonday, and it is hoped will be equally clear to the reader. The eternal principle that should govern and limit the use of all stimulants is this : A corresponding period of depression always follows the exhilarating effect of a stimulant.

If a strong cup of coffee is taken at breakfast, a feeling of moderate and rather pleasant excitement lasts almost until the next meal. For this reason dyspeptics who limit their coffee drinking to the morning meal have but little trouble, comparatively, in digesting their breakfast, because the nervous system that presides over the digestive functions is under a constant spur for hours. By noon, however, the stimulant has died out and a state of depression, in which the nervous energy drops as far below the natural as the coffee raised it above, is established.

Before taking the coffee the patient is in a normal condition. For hours after taking it, he is in a supernormal or unnaturally excited state, and by dinner time, when the stimulant has given out, he is in a subnormal or depressed state.

From the foregoing it seems evident that any stimulant that forces the digestive system to the exercise of undue energies in order to digest the morning meal, impairs the power of the stomach and bowels to digest the subsequent meals of the day. Unfortunately for mankind, coffee drinkers do not limit themselves to one or two cups at breakfast, but drink it at the other meals as well. Let us see what results from the constant use of a nervous stimulant of any kind. The muscular system, when forced to work too hard or too long, gets tired and, sooner or later, becomes exhausted. The same is true—exactly the same—of the nervous system, and a stimulant like coffee bears about the same relation to the nerves that the lash of the taskmaster of the South did to the muscles of the slaves in the cotton fields, and therefore, if coffee is taken three times a day, or even once a day in large quantities, a state of partial nervous exhaustion is almost sure to follow, and with it one of the worst forms of dyspepsia imaginable.

In such cases the disease is called "atonic dyspepsia," as atony means debility, and is due to debility or more or less exhaustion of the nervous system.

A better term for this form of dyspepsia would be "coffee dyspepsia," as it is essentially different in many respects from dyspepsia due to other causes, one of its most distressing characteristics being the frequent and terrible headaches that often accompany it, especially the "sick headache."

Almost all coffee drinkers suffer from headaches more or less, and usually the trouble is moderate or severe according to the amount of coffee taken.

The drug treatment of dyspepsia is exceedingly simple, consisting of a single remedy, and is probably worth more in curative results than any or all other drugs that have ever been given in this disease. If the proper hygienic measures are followed as heretofore advised, the extract of ignatia, given before each meal in doses ranging from one-half to a full grain, according to the size of the patient, will cure almost every case of dyspepsia.

The remedy is to be given in pill form, and if the patient weighs from one hundred to one hundred and sixty pounds, a half-grain pill before each meal will be sufficient. Those weighing from one hundred and sixty to two hundred will take three-quarters of a grain, and all persons weighing over two hundred are to have a full grain. In all cases a pill is to be taken before each meal.

The length of time necessary to give the drug depends mainly upon the length of time the disease has existed. In the worst cases it is better to continue it for many months without a solitary break. No remedy can have a fair trial in any disease unless it is given regularly and for a sufficient length of time. One of the pills must be given

before each meal, and should be continued a month for every year the dyspeptic condition has existed. Even in bad and very chronic cases, they may begin to afford relief within two weeks. One great difficulty in the treatment with this drug is that patients often feel so well by the end of the first month that they think they are cured, and either drop the medicine or forget many times to take it. This is very wrong, as it should be taken for months after the patient is seemingly well. The principle upon which the remedy acts is this: During the time it is given it stimulates the nerves that preside over the functions of digestion, rendering the digestive process practically perfect, and filling the veins and arteries with an abundance of good, red, healthy blood. This blood nourishes and stimulates the brain and nervous system, which, in turn, properly stimulate the organs of digestion, rendering the further use of medicine unnecessary.

CONSTIPATION.

OTHER terms for same: intestinal torpor, costiveness.

This is a disease or habit of the system in which there is general inactivity of the bowels, either due to nervous debility of the muscular structure, causing diminished worm-like action, or to a deficiency of the secretions of the liver and bowels. It is marked by a change in the appearance, frequency, and quantity of the stools.

Causes. — Dyspepsia, irregular habits of the patient, improper food, organic diseases of the stomach and liver, and lead poisoning.

Symptoms. — When a person has one stool per day, he is supposed to be in a normal condition, so far as action of

the bowels is concerned, but is not necessarily in an abnormal state if more or less than that number occur.

Some cases of constipation are so moderate as to cause, but little inconvenience; others are somewhat distressing, in which the bowels move only once in two or three days, with stools dry and lumpy; while others in which the bowels move only once or twice per week are attended with great straining and distress, the face being flushed, and the blood vessels about the head and face filled to a point threatening apoplexy.

There are other cases in which the stools are frequent, but small and hard, and act as an irritant to the intestinal tract, especially to the rectum. In such cases there is generally more or less mucus attending each movement of the bowels. When constipation sets in, there is a gradual change in the character of the stools, followed by dyspepsia, more or less headache, mental derangement or stupor, dizziness, fluttering of the heart, and often great distention of the abdomen.

Termination. — Never fatal.

Treatment. — The successful treatment depends upon a change of diet, regular habits, and hearty coöperation of the patient.

Every person who can possibly have one operation of the bowels per day should have a regular hour for going to stool and should not allow business engagements nor anything else to interfere with his habits in this respect.

This is a disease in which physic should never be given, and yet every one so afflicted is disposed to take it and thinks it is impossible to do without it. This is emphatically true with reference to constipation: The physicking treatment never cures a single case, nor will a drug treat-

ment of any kind, except when conjoined with hygienic measures, ever succeed. It must be remembered that all cases of constipation, except the hereditary form, are associated with atonic dyspepsia, both gastric and intestinal, the atony, or nervous debility, which is the same thing, being due in most cases to the excessive use of tea or coffee, alcohol or other stimulants, or to exhaustion of the nervous forces in dealing with the annoying affairs of life, whatever they may be. All these things must be considered in formulating a rational treatment for constipation. As the underlying cause of the disease, aside from heredity, is dyspepsia, the treatment is practically the same as that given for dyspepsia, as far as drugs are concerned.

Therefore, to overcome the atony, or nervous debility, give the solid extract of ignatia in pill form before each meal, the dose ranging from one-half to a full grain according to the size of the patient. Adults weighing from one hundred to one hundred and sixty pounds are to take one-half grain pills, those weighing from a hundred and sixty to two hundred, three-quarters of a grain, and all persons weighing over two hundred are to take a full grain. The remedy must always be taken before meals and in no case more than one pill taken at a time. The treatment should be continued without any interruption for eight weeks, even in ordinary cases. In the most obstinate and distressing cases, it should be followed without a break for four months. This is all the drug treatment that is worth a trial in such cases, as the author has used the ignatia treatment for nearly thirty years, and has found it so uniformly favorable in dyspepsia that he considers it as justly entitled to be ranked as a specific in that disease as quinine is in ague.

The great difficulty experienced in dealing with obstinate physical derangements is that the treatment is not sufficiently radical, and therefore the use of fruits as they are usually taken to overcome constipation is like trying to drive a railroad spike with a tack hammer, as not enough fruit is taken to do any good. There are but few, if any, persons who follow the fruit-diet plan with any regularity, taking but little, if any, between meals and using it at the table just as it happens to suit their taste. In order to be successful, the meat diet should be abandoned, to a great extent, and the fruit diet substituted. An abundance of fruit should be taken every day, the green fruits being most desired when obtainable. Of these the best of all are apples. Three or four apples every day can be eaten with advantage between meals. In addition to this, they should be eaten either fried, stewed, or baked at two meals during the day. Peaches, plums, and other fruits, excepting blackberries, raspberries, and other fruits with small seeds, are beneficial in all cases. There is one important thing for all patients to remember, and that is this: The improvement from the fruit diet will not be observed immediately, nor will a seemingly favorable impression on any chronic disease that manifests itself suddenly be either lasting or beneficial.

Recovery from any chronic ailments must be slow, as the human organism cannot be lifted at once out of the old ruts in which it has long been travelling. If, however, the fruits are eaten lavishly as recommended, to the exclusion, mainly, of meats, improvement will be observed within a week, and if continued, a regular and easy movement of the bowels will be the result, sooner or later. Fruits are said to be nature's cathartic, and it seems to be

really so; for the acid of the fruit in promoting movement of the bowels is not irritating and not in the nature of a physic, for anything acting naturally upon the bowels is not a physic. For this reason and this alone, perhaps, after regularity of the bowels has been established by the use of fruits, it does not become necessary to increase the quantity, but, on the other hand, a less quantity may suffice.

ACUTE DIARRHŒA.

THIS is a disease characterized by frequent and loose movements of the bowels, with or without pain, due to functional irregularity of the small intestines or to organic disease.

Diarrhœa is caused by any irritating agents that enter the intestinal tract, or by indigestible food, or by food of any kind that fails to undergo the proper changes by the digestive process. Impure water, or food that is ill adapted to the purposes of nutrition and carries with it a large amount of inert matter, acts as a physic and keeps up a diarrhœa.

A severe mental shock or an unduly excited condition of the mind, from any cause, or grief, or great anxiety, is liable to precipitate an attack of diarrhœa by arresting digestion. In such cases the food acts as a physic by passing through the bowels almost unchanged.

There are two forms of this disease, — acute and chronic.

Symptoms. — Acute diarrhœa varies in accordance with the causes that produce it. When a patient within a few hours after meals is seized with pain and more or less flatulence, and has an anxious desire to go to stool, it is safe to presume that at that particular time he ate something that did not agree with him. The food failed to

agree with him because, for some reason, it was not digested. The prostrating effects of hot weather with the great amount of water usually taken, have a great tendency to arrest digestion and bring on acute attacks of diarrhœa. As almost all acute forms of this disease are due to a common cause, indigestion, one general treatment is applicable to all, however numerous the names by which the different forms are designated. As the presence of undigested food along and through the entire canal is calculated to keep the bowels in a constant state of irritation, and in that way keep up an exhaustive discharge of water and mucus, the indications for a successful treatment are very clear, and are as follows: Rid the entire intestinal tract of all irritating matter whatever and at the same time exercise a curative and healing influence upon the irritated mucous lining of the bowels. The following is the proper remedy in such cases, because it always succeeds: For adults, give eight powders of five grains each of the first decimal trituration of *mercurius dulcis*, giving one powder every hour. They must not be given in water, as that dissolves the sugar and destroys the effect of the trituration. The powder may be mixed with a little common sugar and placed upon the tongue in a dry condition. Then give a tablespoonful of water. A patient should not take more than one tablespoonful of water every half hour when suffering from this disease. This amount should be carefully measured, for it is just as important to measure and limit the water as it is to weigh or measure the medicine given. By the time the powders are all given, if not before, they will commence to work off. The stools will gradually become darker until they are almost black, then they will fade in color at each movement until they are

natural. Then the trouble is over, provided the patient does not foolishly drink too much water. It is rarely necessary, after these powders are given in this way, to give anything to check the bowels, and *never* necessary if the directions are carefully followed regarding the use of water. If, however, it should even become necessary, a teaspoonful of paregoric two or three times per day for two or three days will answer.

CHOLERA INFANTUM.

SUMMER COMPLAINT.

THIS is an acute inflammation of the mucous lining of the stomach and bowels with irritation of the nervous system, due in most cases to the heat of summer and teething. It is attended with very severe pains, vomiting, purging, intense thirst, and great prostration, sometimes resulting fatally during the first day or night of the attack.

Causes. — Infancy, bad management, teething, excessive heat, improper or too much food, and the greatest of all, too much water.

Symptoms. — The attack is usually very sudden and may occur in a child of perfect health or one suffering from a bowel disease.

It begins with vomiting, is soon followed by severe purging, attended with intense pain and straining, the child having a determined disposition to stay on the vessel. The thirst is intense and is foolishly indulged by the mother or attendant to the great aggravation of the trouble, as the water, even in small quantities, excites both vomiting and purging, and is often the cause, and perhaps the main cause, of a fatal termination.

The thirst is one of the most prominent symptoms, and vain attempts are made by the mother to allay it by the use of ice or small quantities of ice water. The water is generally rejected as soon as it reaches the stomach, except perhaps small portions which pass into the bowels to aggravate the purging, and in this way frequent and profuse evacuations are kept up until the blood is relieved of its watery elements; while the child, often within a few hours, is in a wrinkled, shrunken condition as if from old age. In such cases there is a rapid tendency to a fatal termination. The irritable and restless condition gradually subsides, to be followed by one of stupor in which there is clammy coldness, with pupil of the eye contracted, when the child is almost hopeless, death occurring from exhaustion.

Termination.—As cholera infantum is usually treated, but little care being observed regarding the use of water, the disease is very grave, and the result is at best doubtful; but under proper drug treatment in which, practically, no water is allowed, the vomiting and purging can be arrested, and every child, if taken in hand immediately after the attack, ought to be saved.

Treatment.—The first thing to be done is to stop as quickly as possible the sickness and vomiting, both of which are very prostrating.

If the following directions are carefully followed, this can be easily and promptly done and the child restored to comparative health within twenty-four hours. The great mistake of mothers and doctors in dealing with this disease consists in the reckless use of water or some other form of fluid to control the thirst. Water, cold tea, coffee, milk, or any other form of fluid whatever is simply death to a child in this condition as commonly given.

The physician properly understanding the terrible effects of water in such cases has a constant trouble to keep the mother or attendant from killing the patient by giving ten times as much fluid as should be given, as it is a thousand times better to give none at all than too much. The doctor who has a loose and careless way in dealing with sick people, will lose half his patients in cholera infantum by failing to give proper emphasis to the dangers arising from the use of fluids. If he simply tells the mother to give a teaspoonful of water occasionally, he will find on returning in a few hours, if he inquires into the case, that she has been guessing at the amount of water instead of measuring it, and has given a half-dozen teaspoonfuls instead of one, and "occasionally" has been construed to mean this: to give the child water whenever it asks for it. Such management gets twenty times as much water into the child's stomach as it ought to have, and simply kills it. No such indefinite terms as "occasionally" should ever be used in medicine, and no mother or nurse should have charge of an infant with this disease who does not measure every drop of water and limit the amount to a teaspoonful every half hour. The drug treatment is as follows: To a child from one to two years old, give *mercurius dulcis*, the first decimal trituration, in four-grain doses, one powder being given every hour until six are taken. Each powder is to be placed upon a very little white sugar in the bottom of a teaspoon and then covered with a little more and put in the child's mouth in a dry condition. The medicine is tasteless, the sugar is pleasant and does not excite sickness. One teaspoonful of water is sufficient to wash it down, and if there is no water in the stomach at the time the powder is given, the child cannot throw it up,

as it would require more than a teaspoonful of water to bring the powder back. There may be, and often is, an attempt at vomiting, but owing to the total absence of fluid in the stomach it is impossible to reject the medicine. It soon commences to act favorably upon the mucous tissue of the stomach and to allay the irritation, so by the time the second powder is given the sickness is entirely gone. As the medicine is given every hour and with each dose a teaspoonful of water, there is only one teaspoonful to be given between the times of giving the medicine. These powders are strewn along and through the entire intestinal canal, exercising the effect of a local and healing balm to every part that they touch. Within six hours the medicine begins to work off, the stools become darker and darker until they are almost black, then gradually fading off into brown and, finally, into yellow or natural. While the powders are working off, the child will be somewhat more distressed, and there will be considerable straining at each movement, the pain and straining gradually ceasing as the stools change in color from black or dark green to natural. Another important turn is this: As the favorable change in the color of the stools proceeds, the movements become much less frequent and, finally, instead of occurring every fifteen minutes, occur once in four or five hours, and the child is, practically, well. To guard against the possibility of relapse, great care must be observed in reference to food and water, especially the latter.

One of the happiest things in connection with the treatment is this: After the powders begin to work off and the stools become gradually less frequent, the thirst almost wholly subsides, and hence, irrational as it may seem, the quickest and best way to overcome the thirst is to give,

practically, no liquids. When the management of a case is conducted in this way, it is rarely necessary to give any other drug to restrain the action of the bowels. As the trouble is usually associated with teething there is a tendency to looseness of the bowels, and it is best for such children to have four or five evacuations in twenty-four hours. If, however, the bowels should be too loose and the stools inclined to green, it is obvious that digestion is imperfect and a pill of the solid extract of ignatia, one-eighth of a grain each, should be given at morning, noon, and at night. The best way to give such pills, and they are very small and coated with sugar, is to cover each pill with some kind of fruit or jelly and wash it down quickly with water before the patient chews it and gets the bitter taste. It is best for the child to take the pills in this way for two or three weeks, or until it is in a healthy, natural condition. There must be no carelessness in the use of these pills, for, while there is no danger in giving one three times a day, there would be serious trouble if a double dose were given at any time.

One-eighth of a grain is intended for a child fifteen months old. If younger, one-sixteenth will be large enough.

INTESTINAL INDIGESTION.

INTESTINAL DYSPEPSIA.

THIS disease is a derangement in the functions of intestinal digestion in which there is usually considerable decomposition of food that has failed to digest, due to defects in the pancreatic, biliary, or intestinal secretions, or from deficient worm-like action of the intestines. A

defect in the secretions of either one of these organs, namely, pancreas, liver, or intestines, is sufficient to cause distressing intestinal dyspepsia, and yet the cases are rare in which the defect in secretions is not more or less in all three of these organs. The disease is characterized by abdominal pain, distention of the bowels, coming on several hours after meals, with nervous disturbance and more or less emaciation.

Causes. — Bad diet, rapid and irregular or over eating, deficient exercise, overwork mentally, the immoderate use of stimulants, including tea, coffee, and tobacco. It may also be due to organic disease affecting the intestinal tract, liver, or pancreas. It is frequently hereditary.

Symptoms. — The disease may be either acute or chronic, usually chronic. The acute variety is generally the result of an irritant in the small intestines, pain is rapidly developed, great flatulence, sometimes severe cramp attending the pain, slight feverishness, coated tongue, appetite morbid or lost, pains in the limbs, and often a mild attack of diarrhoea.

If the attack develops rapidly, there is usually a paroxysm of colic, caused by distention of the bowels with gases.

Severe attacks are most frequently caused by derangement of the liver, the stools are light colored, often slight jaundice and high-colored urine.

Chronic Variety. — This form is generally caused by decomposition of partly altered food from the stomach. It is attended with pain more or less severe in character, coming on from two to four hours after meals. There is often tenderness and fulness in the right side and also in the umbilical region. There is considerable gaseous distention of the abdomen, and shortness of breath is often expe-

rienced from pressure of the inflated bowels and stomach against the diaphragm. There is great disturbance of the nervous system due to a limited and impoverished condition of the blood from impairment of the digestive functions. Spirits are depressed, with sleeplessness, or imperfect sleep attended with disturbing dreams, headache, dizziness, deficient mental application, palpitation of the heart, numbness of the extremities, and sometimes pains throughout the body.

Termination. — Favorable under proper and timely treatment.

Treatment. — In the acute variety the pain is often so severe as to require a remedy for immediate relief. In such cases it is best to give a one-fourth grain morphine pill every two hours until perfect relief is secured. After relief is obtained, an effort should be made to arouse the liver and intestinal secretions. This is best done by giving five grains mercurius dulcis, the first decimal trituration, every hour until six powders are given. The remedy must not be given in water, but is to be placed on the tongue dry and washed down with a tablespoonful of water. The six powders thus given are calculated to act on the bowels, but under the restraining effect of the morphine may fail to do so, and may require a dose of castor oil or sweet oil, preferably the latter. This treatment will stimulate the liver and intestinal tract, and the stools will be changed from a light color to a dark brown. In almost all cases of this disease there is an atonic condition or debilitated state of the nervous system. For this reason the nerves fail to properly excite the pancreas, liver, and muscular action of the bowels. This enfeebled condition of the nerve forces is often caused by excessive mental

application or the burdens and perplexities of business. In addition to this the impoverished condition of the blood fails to properly nourish and stimulate the brain and nervous system. This increases the nervous debility and greatly adds to the trouble of intestinal dyspepsia. From the foregoing the indications for a rational treatment are very obvious and consist in stimulating, temporarily, the brain and nerve energies. When this is done *they* stimulate the digestive organs and the latter digest the food and fill the veins and arteries with pure blood. This, however, may require weeks of time, when an abundance of good, healthy blood is created by the digestive forces, the brain and nerves are properly nourished and excited so as to render the use of an artificial stimulant unnecessary. Therefore the curative treatment consists in eating at regular hours, taking food that is easy to digest and properly adapted to the purposes of nutrition, never eating too much at any one time, and conserving as far as possible the vital forces by avoiding the mental strain and labors that are the chief factors in causing both gastric and intestinal dyspepsia.

The same drug is to be given in intestinal dyspepsia as that given in atonic dyspepsia of the stomach, therefore give the extract of *ignatia amara* in pill form, ranging in doses from one-half to a full grain, according to the size of the patient. One pill is to be given before each meal, and if the patient weighs from one hundred to one hundred and sixty pounds, a half-grain pill is the proper dose; if from one sixty to two hundred, three-quarters of a grain is the proper sized pill. All persons weighing over two hundred are to take a full grain. The dose for children from eight years to twelve is one-quarter of a grain. Chil-

dren from two to eight that are subject to colic pains and other symptoms of disturbed digestion are to have one-eighth of a grain before each meal. Infants from three months old to two years one-sixteenth of a grain three times a day. In the chronic and obstinate form of intestinal indigestion, the drug should be given for at least ten weeks. In the treatment and management of intestinal dyspepsia, alcoholic stimulants, and also tea and coffee, except in a very moderate way, are to be avoided.

ACUTE DYSENTERY.

OTHER names: colitis; ulcerative colitis; bloody flux.

This is an acute inflammation of the mucous membrane of the lower bowels, mainly the colon, followed sometimes by fever, terrible pain, almost constant desire to stool, discharges from the bowels being small and bloody.

Causes. — The disease prevails most extensively in the summer and early autumn months. The depressing effect of hot weather is probably an exciting cause and, conjoined with this, may be included a reckless use of unripe fruits, and the use of impure drinking water, especially the latter.

Symptoms. — The catarrhal and most common form of dysentery begins gradually with diarrhœa, more or less sickness of the stomach, increased temperature, and loss of appetite. These symptoms may continue for two or three days, when the real dysentery sets in, with pain on pressure along the transverse and descending colon, colicky pains in the navel region, burning pain in the rectum, and a feeling as if something offensive was there and a constant desire to go to stool. Stools gradually change from

a fecal character to that of mucus, pus, and blood, the latter largely predominating. In some cases there is obstinate vomiting. The stools vary in number from ten to thirty in twenty-four hours. The duration of the real dysentery, unless very successfully treated, is from a week to ten days, and leaves the patient greatly reduced in flesh and very weak.

Termination. — Favorable, except in persons debilitated or suffering from other affections or intemperance.

Treatment. — It is proper to regard dysentery under all circumstances as a grave disease, and in the late war, when it prevailed epidemically, it was said to be more destructive to life than all the weapons of warfare. In one regiment it seemed to affect, in one way or another, so many of the men that the colonel of the regiment offered a reward of ten dollars for a healthy stool.

Dysenteric patients should be confined to the bed from the first, and the stools removed from the room as soon as passed. The vessels should be disinfected with a solution of carbolic acid of the strength of one tablespoonful to the pint. The diet should be of a kind most easily digested and void of irritating properties.

As regards the drug treatment of this disease, the golden opportunity is during the premonitory or warning symptoms. Whenever dysentery exists in a family, or even in a town or neighborhood, extensively, it is safest to regard all cases of diarrhoea as the first stage of dysentery and treat them accordingly. If this is done and a proper treatment adopted, every case can be broken up before the bloody discharges set in. Suppose, for example, that in a family of a dozen children there are three cases of dysentery. Each one of these cases has commenced with a

diarrhœa, lasting about three days before the beginning of the bloody flux. Should a diarrhœa attack another one of the children, there is every reason to believe that it will develop, as the other cases have, dysentery.

The proper treatment, however, is employed to break up the diarrhœa, and in doing so the dysentery is completely aborted, and so on with every other case that occurs in the family. Experiences of this kind have been so extensive in the practice of the author that he feels warranted in giving the following as a specific treatment in dysentery, provided it is adopted before the bloody discharges set in: To every patient with the supposed dysenteric diarrhœa, give a five-grain powder of the first decimal trituration of *mercurius dulcis* every hour until six powders are given. The powder is to be placed in the mouth or on the tongue in a dry condition, and then washed down with a tablespoonful of water. The powder must never be dissolved nor given in water, as that destroys the effect of the trituration. In this stage of the disease there is some fever and liable to be considerable thirst, but water must not be given except in tablespoonful doses, once every half hour.

As a tablespoonful of water is given every hour with a powder, there is only one tablespoonful to be given between powders. The medicine will work itself off in eight or ten hours, the stools becoming dark as soon as the physic commences to operate, and the color will deepen until they are almost black, and then gradually shade off into brown and finally yellow, or natural. As the stools change from black to the natural color, they become less frequent, the griping subsides, and the trouble is over. In all such cases as the above, if the patient limits the water drinking to one swal-

low at a time every hour for a day or two, the diarrhœa will not return and he will surely have no dysentery.

If for any reason this abortive treatment should be neglected until the dysentery is fully established, it will not break it up, and we are compelled to do the best we can with a fully developed case of the disease. The treatment, however, as given above is the best way in which to rid the intestinal tract of all irritating matter, even after the flux has set in. When this is done the action of the bowels may be properly restrained by giving one-half grain of opium and one grain of acetate of lead every two or three hours, so as to limit the stools to ten or twelve in twenty-four hours. If the patient should be a child five years old, give Dover's powder instead of the opium, giving one grain of the Dover to a half grain of the acetate of lead. For adults, one grain of opium to two grains of acetate of lead is the proper dose in ordinary cases.

To overcome the terrible burning and annoying desire to go to stool, laudanum and sweet oil may be injected into the rectum with a small, black rubber syringe, the quantity being for an adult, a teaspoonful of the laudanum to a table-spoonful of the oil. After it has been held from five to ten minutes the patient must discharge it into a vessel to avoid the constitutional effect of the laudanum. If, from the exhaustive evacuations and deranged nutrition, symptoms of great debility supervene, brandy is indicated and may be given every half hour in teaspoonful doses, and even in larger quantities. But that which is most vitally important in dealing with dysentery, is to take it during its developing stage and treat it as outlined above and break it up, so as to avoid the pain, complications, and dangers that must always accompany the disease when once fully established.

EPIDEMIC CHOLERA.

OTHER names: cholera; Asiatic cholera; spasmodic cholera; malignant cholera. This is an acute, specific disease, both epidemic and infectious, and is attended with the most violent purging and the discharge of rice-water stools, constant vomiting, muscular spasm, or cramp, often followed by fatal collapse.

Cause. — The cause of the disease is a bacillus, or specific poison, or a life germ that is seen only by the microscope. It is supposed that the main power of infection is in the cholera stools, and that emanations from these stools poison the air and in that way extend the epidemic from one locality to another. One attack of it does not afford protection from the second.

Symptoms. — It may set in abruptly, attacking a person previously in excellent health, or it may commence with premonitory symptoms, consisting of a severe diarrhœa, sickness of the stomach, griping pains, and more or less prostration. The first stage of cholera begins with a chilly feeling, great thirst, coated tongue, pain in the bowels, and several watery stools during the day, all these symptoms being attended with weakness.

In the second stage the stools become very frequent, or immense in quantity, consisting of a whitish, rice-water fluid, there is terrible vomiting, the matter thrown from the stomach being mixed at first with bilious matter and finally becoming like rice water. As the water of the blood is being discharged rapidly from the body through vomiting and purging, the thirst is constantly increasing. Muscular cramps finally come on, affecting most of the muscles of the body, but especially severe in the legs.

In the third stage, the rapid stools, excessive vomiting, and spasm of the muscles continue, the eyes are sunken, the cheeks hollow, lips blue, the skin of the hands and fingers is wrinkled as in old age, the heat of the body rapidly fails, the pulse is small, the voice weak, and all the symptoms point to a fatal termination. Death sometimes occurs in three hours and is at other times delayed for two days, even in the fatal forms of the disease.

In the stage of reaction the heat of the body gradually rises, the pulse gets stronger, the face takes on a more natural appearance, the stools are less painful and not so frequent, sickness of the stomach subsides, and the patient commences a slow recovery, or the case may drift into a condition of cholera typhoid from which recovery is slow.

Termination. — This is very unfavorable, as the death-rate ranges from twenty-five to seventy-five per cent.

Treatment. — In the treatment of this terrible disease there are two exceedingly important things to be done. The first is to take the case during the premonitory symptoms, or those of diarrhœa, and treat it so as to prevent the occurrence of cholera, for in almost every case in which the diarrhœa is cured the cholera fails to develop. Experience has shown that it is bad policy merely to check this diarrhœa with opiates and astringents, as it only delays the trouble that must sooner or later come on, the diarrhœa in such cases breaking out as soon as the opiate is withdrawn. It is therefore best to remove all irritating matter from the bowels by giving calomel in divided doses as follows for an adult: *Mercurius dulcis*, the first decimal trituration, thirty grains. Divide into five powders and give one powder every hour by placing it in a dry state upon the tongue and allowing it to be washed down with

a tablespoonful of water. It will act on every part of the intestinal tract, producing first an irritant effect, and second a healing and soothing effect. During its primary action the bowels are thoroughly emptied, the stools becoming almost black and gradually fading into the natural color. When this is done it is rarely necessary to give any other remedy. During the whole treatment of the diarrhœa, water must be given in teaspoonful doses every half hour, as larger amounts tend to keep up the diarrhœa and endanger life by final development of cholera. The second important thing to be done is to commence a vigorous treatment with the first appearance of the disease, and prevent the stage of collapse that is almost always fatal. A great many cholera mixtures are used in this stage, but the basis of all such mixtures is opium in some form, and upon this drug we must rely almost absolutely in order to control the terrible symptoms. Just after a severe vomiting, when the stomach is supposed to be empty, a full half grain of morphine should be given. If thrown up, another dose of equal size should be given, and so on until the drug is retained. Within a half hour the pain and spasm of the muscles may be slightly relieved, but if great relief is not apparent within forty-five minutes another half grain should be given, as there is scarcely any danger of fatal poisoning by morphine in half-grain doses in cholera.

During all the time the morphine is being given, hot poultices should be applied to the abdomen to overcome the cramp. Morphine given in this way or by hypodermic injection is the sovereign remedy in cholera, just as it is in cholera morbus. There is scarcely anything that goes down the throat calculated to do as much harm as water

in such affections of the stomach and bowels. Instead of water checking the thirst, it provokes it by causing both vomiting and purging. In this way a half pint of water given to allay the thirst is liable to cause a loss to the system of two or three times that amount by vomiting and liquid stools. This gives rise to greater thirst, and more water is given with the same results. It is all wrong, and the thirst may be controlled much quicker by limiting the amount to a teaspoonful every half hour.

CHOLERA MORBUS.

OTHER names: bilious cholera; sporadic cholera; English cholera.

This is an acute inflammation of the mucous membrane of the stomach and bowels attended with great pain in the abdomen, continual vomiting and purging, cramp colic, the cramp affecting the abdominal muscles and those of the extremities. The pulse is rapid and weak, the face anxious and covered with cold perspiration.

Causes. — The most important of all causes are the irritating effects of hot weather. As the heat of summer is very depressing to the nervous system, the power to digest food is diminished while at the same time the copious draughts of cold water further reduce the digestive energy of the stomach, causing a fit of acute indigestion, and that is what cholera morbus practically is, acute or temporary indigestion.

Symptoms. — The disease commences with but little if any warning and almost always in the latter part of the night. The first symptoms are those of deathly sickness, soon followed by vomiting and purging, accompanied with

terrible griping pains. During the sickness and vomiting there are painful cramps of the abdominal muscles and those of the extremities. To commence with, the vomited matter is generally undigested food, showing, although it has been in the stomach for hours, that it has undergone but little change. The part of the undigested food that is not vomited passes into the bowels, arouses the secretions by acting as an irritant, and brings on a profuse liquid diarrhœa. The stools are usually a yellowish green. If the attack is unusually severe, approaching in gravity epidemic cholera, the stools will take on the "rice-water" character. The patient is rapidly reduced in strength and seemingly in flesh also, the features are shrunk and wrinkled, the surface cold and covered with perspiration, pulse frequent and feeble. The thirst is great and water excites vomiting.

Termination.—This is very favorable under the right treatment if the patient is in a healthy condition at the time of the attack. In those suffering from the infirmities of old age the mortality is great. Drunkards, in this as in all other violent and prostrating diseases, are most liable to perish, as they are shorn of half their strength and power of endurance at the commencement of the attack.

Treatment.—Happily there is a rational and almost unfailing remedy for this distressing disease. It is best not to give any medicine to restrain the action of the stomach in its efforts to get rid of the offending contents until it has pretty thoroughly emptied itself. If it were possible for the stomach to retain and absorb enough opium to stop the vomiting and leave the organ distended with undigested food, it would be very unfortunate if not dangerous. Therefore, the stomach must be emptied and

a pint of warm water will be a material assistance in ridding it of all offending matter. The rest of the treatment is easy and simple and consists in giving from one-fourth to one-half grain of sulphate of morphine as follows: Give it in pill form so as to avoid the disagreeable taste, put the pill well back on the tongue and give a teaspoonful of water to wash it down. The point is this: In order to avoid having the pill thrown up, give as little water as possible, and if this amount can be limited to a teaspoonful to wash it down, it will not be sufficient to wash it up. If the stomach is entirely empty, the pill will be absorbed in one-tenth the time that it would be if it were full of food. After about three-eighths of a grain of morphine is given on an empty stomach, the sickness and pain will begin to subside in twenty minutes, and within three-quarters of an hour, if the dose has been sufficiently large, the patient will be perfectly relieved and will not likely need any more medicine of any kind. Morphine is the best of all remedies in these cases and should be given in a dose sufficiently large to render perfect relief in three-quarters of an hour.

It is not always possible to tell how large a dose a particular case will require, and it may be best to give a quarter of a grain and wait about forty minutes, and then if necessary give another quarter. It usually takes about a half grain to secure perfect relief.

INTESTINAL COLIC.

THIS disease is a spasmodic contraction of the muscular structure of the bowels. It is attended with acute paroxysmal pain near the umbilical region, and is relieved by pressure or the application of heat.

Causes.—Obstruction or constipation of the bowels, impaired digestion or the presence of indigestible food, collection of gases, an excessive amount of bile in the intestines, or lead poisoning.

Symptoms.—There are frequent pains spreading over the abdomen, attended with intervals of more or less comfort; the pain is often very severe and accompanied by cramps of the most excruciating character. The patient is restless, with an anxious, distressed countenance, and tries to relieve the pain by lying on his stomach. There are often nausea and vomiting and a desire to go to stool. The bowels are usually bound but sometimes are loose.

Termination.—Most favorable. It rarely terminates fatally.

Treatment.—In all cases of severe pain the attention must be directed to immediate relief. For this purpose there is nothing better than a morphine pill, one-fourth grain, given every hour until the pain is relieved. After relief is obtained an effort must be made for a radical cure. For this purpose eight or ten powders, five grains each, of *mercurius dulcis*, the first decimal trituration, should be given, one powder being given every hour and followed by a physic of sweet oil, two tablespoonfuls. In this way the patient will get from four to five grains of calomel, which will act on the liver and intestinal tract. After it works off the stools will change from a very dark brown

or black, caused by the mercury, to a normal color, and the trouble will be over.

CATARRHAL ENTERITIS.

OTHER names: inflammation of the bowels; intestinal catarrh; acute diarrhœa. This is an inflammation of the mucous membrane of the smaller bowels, attended with pain, soreness on pressure, and diarrhœa.

Symptoms. — It usually commences with a chill or chilly feeling, followed by a fever which is sometimes considerable. The pain that accompanies the fever is severe, but comes and goes. The pain is just below the stomach. There is more or less sickness, with occasional vomiting. The diarrhœa setting in soon after the attack is obstinate and severe. The stools are a greenish yellow, mixed with undigested food.

The duration of the disease is from four or five days to two weeks.

Termination. — Favorable if properly treated.

Treatment. — The main thing in these cases is to keep the bowels as near a condition of absolute rest as possible. With this idea in view the diet should be restricted to chicken broth, milk, and articles of food that do not irritate inflamed bowels.

Rest in bed is very important, as any movement of the body is painful to the patient and has a tendency to aggravate the inflammatory condition. Where the disease exists in children it is exceedingly troublesome to manage, the most difficult thing being to control the pain. The way to accomplish this deserves very careful consideration. As a rule children do not bear opiates well, and for this

reason they should be given as little as possible. But they cannot bear the pain and something very decided in its action must be given to relieve it. In the great majority of cases there are green stools, and these never exist either in children or adults except in connection with severe pain, and it is almost out of the question to control such pain until the stools are changed from green to natural. In this affection there is often vomiting, and this and the green stools call for the administration of mercury, but it must be given in very small doses to avoid the irritating effects of the physic. Calomel in doses of three-tenths of a grain may be given to children every hour, until five or six powders are given. They will act gently on the stomach and bowels, will change the stools from green to natural, after which the griping pains will cease. Whenever the stools are natural in color, the diarrhoea will subside and the little patient will pass into a quiet sleep that may last for hours. The best way to give the drug is as follows: *Mercurius dulcis*, the first decimal trituration, grains fifteen, divide into five powders and give one every hour until all are given. The powders must be placed in the mouth dry and washed down with a swallow of water. Children should not be allowed to drink over a teaspoonful of water every half hour until the diarrhoea is entirely controlled. After the powders have worked off, should it be necessary to give anything to control the pain and movement of the bowels, paregoric in doses ranging from three to six drops, according to the age of the child, may be given every three or four hours.

Should the green stools and griping pains affect adult patients, the same treatment must be followed, doubling the quantity of the drug and giving it every hour whether

there is sickness of the stomach or not. Long experience has shown that the pain is a great deal easier controlled after the stools are changed from green to the natural color, and recovery is much more rapid and less subject to relapses. In all adult cases after the stools have become natural in color, opium, to keep the bowels in a state of perfect rest, should be given. One grain every three or four hours will be sufficient.

Beef, mutton, or chicken broth may be given several times per day in small quantities, or milk with a limited amount of stale bread when desirable. As there is a tendency to diarrhœa, water should not be used except in teaspoonfuls every half hour. It is much better to use milk or something that is nourishing.

DRUNKARD'S DYSPEPSIA.

IN this form of dyspepsia, to the baneful effects of a stimulant to the nervous system is added the terrible irritation of alcohol to the mucous membrane of the stomach. Like other stimulants, alcohol quickens the heart's action and arouses every organ of the body to undue activity, and except for the chemical effect of the drug upon the food in the stomach, has an intrinsic tendency to promote digestion by increasing, temporarily, the nervous forces. But unfortunately alcohol has been found in all cases of artificial digestion in which tests have been made to retard the digestive process. If this were the only objection to the use of alcohol before or during meals, it would be enough to condemn it; but the stimulating and irritating effect is a hundred times more deplorable than the local chemical effect upon the food. It will therefore be ob-

served that alcohol interferes with the functions of digestion in three different ways. First, by stimulating the entire organism. As a corresponding degree of depression always follows the exhilarating effect of a stimulant, a state of the digestive functions that is more or less enfeebled must always follow the effects of alcohol. Second, the irritating effect of the drug upon the stomach causes that organ to secrete for a limited time an abnormal amount of gastric juice. This, of course, favors digestion for a little while, but the stomach is unduly irritated and gradually drifts into a state of chronic inflammation in which the functions of digestion are seriously disturbed. Third, the chemical action of the alcohol upon the food renders it difficult to digest and almost doubles the time required for the completion of the digestive process. This, of course, draws heavily upon the nervous and vital forces, and has a tendency, sooner or later, to produce nervous exhaustion.

Under the continuous use of alcohol the mucous membrane of the stomach, which is usually thickened, is in a chronic state of irritation, and in time the organ begins to reject food. The vomiting established in this way gradually grows worse, until it has a serious effect upon nutrition.

This impoverishes the blood, which fails to nourish and properly stimulate the brain and nerve fibres, and thus greatly increases the alcoholic indigestion. It may reach a stage, if the patient survives long enough, in which the mucous membrane of the stomach is to a great extent destroyed. However this may be, when an alcoholic dyspeptic gets so far on the downward road as habitually to throw up part of his food, his days are numbered, as ceasing the use of the poisonous drug will rarely save him.

There is no available treatment of this disease except leaving off the stimulant before the habitual vomiting is established and resorting to the treatment given for atonic dyspepsia, which please see. All such cases, however, are exceedingly obstinate, and the organic changes render recovery under the best possible treatment doubtful.

X

PERITYPHLITIS — APPENDICITIS.

OTHER names: perityphlitic abscess; suppurative appendicitis.

Perityphlitis is an acute inflammation, involving a small portion of the colon called the cæcum, usually resulting in an abscess. Appendicitis is an acute or subacute inflammation of a little worm-like appendage of the bowel, called "appendix vermiformis." It usually leads to perforation of the appendix and the formation of an abscess.

(Without a knowledge of anatomy the nature of these two affections is very hard to understand; but so many deaths have occurred in the last few years from appendicitis, and so many surgical operations have been performed and the diseased appendix removed in order to save life, that the public have become deeply interested in the subject of appendicitis. It is therefore thought best to give a careful and plain description of the two diseases with which this chapter is headed, and which are anatomically connected with each other.)

Perityphlitis is usually caused by appendicitis, but not always. Appendicitis is caused by the lodgment of a foreign body in the appendix. The small seeds of fruits may get switched off into this useless pocket of the bowels and cause inflammation, leading to perforation of the appen-

dix by an abscess. It seems to be more common in males than in females, and is most frequent between childhood and the age of thirty.

Symptoms. — The two diseases, perityphlitis and appendicitis, have symptoms very much alike. The symptoms of appendicitis commence with soreness on the right side of the abdomen, low down, and are attended with severe pain, sickness, and vomiting. The right leg is generally drawn up so as to relax the muscles of the right side and relieve the pressure upon the inflamed portion of the bowel. At the seat of the pain and soreness is found, sooner or later, a hard lump or swelling. The affection may commence with a chill. Whether it does or not there is fever from the beginning, and the pulse is full and strong as in other inflammations.

The bowels are costive, tongue coated, and colic pains frequent and severe. The dangerous tendency of the disease is to the formation of an abscess, and during its development there are chilly feelings, with greatly increased temperature, throbbing of the tumor, and general increased gravity, all characteristic symptoms of the suppurative process, or the formation of an abscess that is liable to lead to a fatal termination.

Treatment. — An effort should be made to allay the inflammation as soon as possible. For this purpose it is best to give the tincture of veratrum viride in two-drop doses every hour, commencing as soon as the pulse reaches one hundred beats per minute. Continue the drug for six hours, then leave it off for two hours, and then give it six hours longer. In the mean time the swelling must be painted every five or six hours with a strong tincture of iodine.

(This is a disease that requires the attention of a skilful physician from the commencement, or as soon as it is recognized.)

When it becomes evident that an abscess is forming, the suppurative process should be hastened by flaxseed poultices, and as soon as the matter is located by fluctuation of the tumor, it should be freely lanced. Morphine should be given to quiet the pain and keep the bowels in a state of rest.

INTESTINAL PARASITES.

TAPEWORMS.

Causes. — The “armed tapeworm” is the most frequent in this country, the germ or embryo entering the bowels by the patients eating raw pork.

The “unarmed” tapeworm enters the stomach by patients eating raw beef infected with the tapeworm germs.

Another “unarmed” tapeworm is the largest ever found in the human body, and the embryo is supposed to come from some kind of a fish.

The egg of the worm is simply swallowed with food, hatches in the intestine, and grows to maturity. Why the worm egg is not destroyed by the gastric juices that eat up and dissolve all kinds of meat, hard-boiled eggs, and other solids, no one can tell. It is well to remember that but few people have perfect digestion, and when it is not perfect some of the food passes into the bowels undigested, and along with this food may pass unharmed the eggs from which various worms are hatched. Some parasites are exceedingly hard to kill, as worms seemingly as long and

large as a darning needle are found in the strongest cider vinegar, but of course are infinitely small and can be seen only with a microscope.

The "unarmed" tapeworm is from ten to thirty feet long, has a round head and slender neck, somewhat like a snake. The most unfortunate thing connected with a tapeworm is that it is divided up into a multiplicity of joints, the longest worm having at least a thousand joints, each and every joint containing the sexual organs of both male and female. When a long worm gets broken into pieces, as frequently happens, the rapid propagation of new worms is readily imaginable. It is said that the ordinary tapeworm contains millions of eggs. The worm lives in the upper part of the small intestines, to the walls of which it secures itself by suckers.

Symptoms. — In many cases where tapeworms have been found by accident to exist, their presence was attended by no symptoms whatever; but as a general thing the symptoms are essentially those of dyspepsia, such as a painful hunger, severe colic in the stomach and bowels, loss of flesh, constipation, fluttering of the heart, and sometimes itching about the anus and nose.

As in dyspepsia, all the symptoms are usually relieved by the patient eating a full meal. There is no symptom nor group of symptoms to afford infallible evidence that a tapeworm exists in the bowels of any patient until a worm or part of a worm is passed.

Treatment. — In dealing with this trouble it is proposed to give one remedy, and only one, for the destruction of all the varieties of tapeworm; and the drug is a positive specific, provided all the directions are carefully followed, and if they are not followed the chances are more than even

that the whole of the worm will not be expelled, and as each joint contains the reproductive organs of both sexes, any part of the worm remaining in the bowels will breed other worms. The idea that the expulsion of the head of the worm ends the trouble is exceedingly delusive, as the power of reproduction belongs to every part of the worm.

The treatment and full directions are as follows: First go to a drug store and get one ounce of powdered Kousso. The drug should be as fresh as possible. Twenty-four hours before giving the medicine, a thorough physic must be taken, and this should be in the morning before breakfast and sufficient to thoroughly empty the bowels. But very little food should be taken during the day, so on the following morning the stomach and bowels will be practically empty. Put a half ounce of the Kousso in a half pint of hot water, let it sit till it cools, then stir it well, have the patient swallow half of it, and in a half hour swallow the other half. This must be taken as soon as the patient arises from bed and no food eaten until the Kousso works off, which is usually within four or five hours.

Should it not pass off in that time, a full dose of castor oil should be given. To avoid sickness from the use of this remedy it is sometimes found best to give a half cup of hot coffee after each portion of the drug. Given in this way it is rarely necessary to repeat the dose, but the author has found a few cases in which he was compelled to give the remedy in ounce doses, owing, most likely, to impurities of the drug or to its having been kept too long.

ROUNDWORMS.

OF these there are two varieties: the long roundworms, ranging in length from eight to fifteen inches, are the most common; the eggs of these worms are introduced with food or drink, and hatch and establish their dwelling-place in the small intestines, though they meander through the entire bowels, more or less. The other variety is commonly called "pinworms"; they are also called "seat-worms" and "threadworms." They develop in the lower and larger bowels, mainly the rectum. Their eggs or larvæ gain entrance with food and drink. These little annoying things are from a quarter to a half inch in length, and look like a piece of white sewing thread. They conceal themselves in the folds of the rectum or anus, and in wriggling about cause the greatest itching imaginable.

Symptoms. — There are no symptoms that positively indicate the presence of the roundworms except the passage of one or more from the bowels. Many symptoms are given in the medical books suggesting that worms exist in the bowels, but such symptoms are liable to occur in other affections, and therefore there is but little reliance upon any signs except the actual passage of worms.

The symptoms of pinworms are intense itching and a frequent desire to go to stool. As anything that irritates the mucous membrane excites a flow of mucus, the frequent stools caused by pinworms consist mainly of such mucus. These small worms sometimes get into the sexual organs of children and cause terrible suffering.

Treatment. — There is an infallible remedy for the long roundworm, and it is as follows:

Santonine, grains ten,

Calomel, grains three,
Mix and divide into five powders.

Give one every three hours during the day, and at bedtime give a couple of teaspoonfuls of castor oil.

If there is any difficulty in getting the child to take the castor oil some other gentle physic will answer.

The same remedy may be given for pinworms, and in addition an injection of the following into the rectum may be given: Carbolic acid, one teaspoonful; water, one pint. After shaking well, inject about one ounce into the rectum of a child, and have it sit on the vessel and pass it away immediately. This may be repeated every day for several days until the worms are all destroyed.

In adults a half pint of the solution may be injected. After it is held four or five minutes, it must be passed into a vessel, and the rectum washed out with a half pint of pure water. In all cases, when pinworms cause great itching by their presence in the anus, an injection of cold water, to the amount of half a pint, should be given, and will almost always afford complete relief by dislodging them.

GASTRALGIA.

OTHER names: stomachic colic; cardialgia; gastrodynia; neuralgia of the stomach; spasm of the stomach.

This disease is commonly known as neuralgia of the stomach, and, as in neuralgia of other organs, the pain is intense, coming in paroxysms, and there is the severest and most painful cramp involving the muscles of the stomach, usually called "cramp colic." The pain is so terrible as to develop symptoms of fatal collapse, the countenance showing great anxiety and the face covered with cold perspiration.

Causes. — It may be due to a great many causes, but the most important are those influences that exercise an exhaustive effect upon the nervous system. Business troubles, family cares and anxieties, and indeed any and all things that use up nervous energy, favor the development of gastralgia, and with it acute indigestion. The disease may be caused by overeating or by the use of articles of food that are very hard to digest.

Symptoms. — Almost all neuralgic affections are characterized by paroxysms, and this is especially true of neuralgia of the stomach. There is violent pain in the stomach, frequently severe cramp, the extremities are cold, stomach distended, patients often screaming from intense agony. These severe attacks may last only a few minutes at a time, but in some cases they may not subside for an hour or more. Even where no opiate is given, vomiting may occur, in which the stomach is entirely emptied of everything, including the gas that was the source of the most pain, and in that way immediate relief is obtained.

Termination. — This is almost always favorable in reference both to life and health. It is not a dangerous disease so far as life is concerned, but the treatment that is usually adopted by doctors, with a view of curing the affection, almost always fails, and persons in whom gastralgia is once fairly established seem to be doomed to suffer from it as long as they live. The author has always adopted in this extremely aggravating affection a treatment never given in any of the text-books, and that is essentially his own. He considers it strictly a neuralgic trouble, just as sciatica and other local disturbances are, and directs his treatment absolutely to the nervous system. So far as cure is concerned, nothing whatever can be accomplished during

the paroxysm. This must be controlled with an opiate, and nothing is better than morphine. A quarter-grain pill of the sulphate of morphine may be given every half hour until the spasm and pain are overcome. In a day or two, when the patient has in a measure recovered from the prostrating effects of the attack, the proper treatment should be commenced to prevent the recurrence of attacks. This is strictly the curative treatment. The paroxysms are periodic, in some cases coming on every month, and in others occurring only two or three times per year. In cases that have existed for years, the treatment to be given hereafter should be followed for six months. It consists in giving the solid extract of *ignatia* three times per day, in doses as large as the patient will bear without causing headache or twitching of the muscles. For persons weighing from one hundred to one hundred and fifty pounds, a half-grain pill will probably be strong enough. In those weighing from a hundred and fifty to two hundred pounds, a three-quarter-grain pill may be given before breakfast and before dinner, and a half-grain pill before supper, as a large dose of the drug taken at night is liable to interfere with sleeping. It must be remembered in all cases, however, if the size of the pill selected causes headache, a smaller one must be taken in its place; for example: If headache occurs every day from the use of a three-quarter-grain pill before each meal, these pills must be discontinued and half-grain pills used instead.

One of the very happy features of the treatment is this: The patient does not feel the effects of the drug at all, when the proper dose is given. The only effect that is observed is that the paroxysms cease to occur. Where the treatment is commenced immediately after one

paroxysm with a view of preventing the next one, which may be due in six weeks, it will almost always prevent it. The drug must not be left off for five or six months. After this, if no paroxysms have occurred, the patient is usually safe. Sometimes, however, after four or five years, the disease sets in again and must be treated in exactly the same manner.

GASTRIC CANCER.

OTHER names: gastric carcinoma; cancer of the stomach.

This is a malignant tumor or growth involving part of the stomach, with a tendency to constant development and gradual destruction of that organ. The functions of digestion are always interrupted more or less, giving rise to pain, vomiting, and other symptoms of acute dyspepsia, death sooner or later in all cases ending the suffering of the patient.

Symptoms. — The first symptoms may be those of indigestion, gradually becoming more marked in character. In most cases there is vomiting soon after eating. In such cases the cancer is located at the upper part of the stomach, but if the vomiting should occur two or three hours after eating, it is at the lower part where the stomach connects with the bowels. The matter vomited may be imperfectly digested food or it may be food mixed with blood. Hemorrhage, which is very moderate in quantity, is liable to occur at any time, and the quantity being small, is not liable to excite vomiting for several hours, and therefore, when food is thrown up it is mixed with broken-up blood clots that look like coffee-grounds;

hence the "coffee-ground" vomit is considered a characteristic symptom of cancer of the stomach.

Termination. — This is always unfavorable. Medicine affords no hope whatever as far as recovery is concerned.

Treatment. — This consists in doing whatever is possible to relieve the sufferings of the patient. A sour stomach may be controlled as well with the bicarbonate of soda (common baking soda) as with any other drug. Put a heaping teaspoonful in a half glass of water and let a swallow of it be taken as often as is necessary. The pain must be controlled, and for this purpose morphine may be given in one-fourth-grain doses, repeated as often as is needed. For convenience it is best to give the drug in pill form, as morphine pills in desirable doses are obtainable at all drug stores.

ASCITES.

OTHER names: abdominal dropsy; peritoneal dropsy.

This is a collection of water in the abdominal cavity, causing great enlargement, usually stretching the skin covering the abdomen so as to give it a glossy appearance. The upward pressure is often so great as to seriously embarrass respiration.

Causes. — The disease may exist in connection with general dropsy or it may arise from obstruction in the liver, causing a delay in the backward flow of blood from the lower part of the body to the heart. Such a condition of the liver is almost always malignant and therefore incurable, and so is the attending dropsy. The affection is also due to diseases of the heart and kidneys.

Symptoms. — The dropsy comes on gradually. The first

important and most noticeable symptom is the abdominal enlargement, and this causes most of the other symptoms by mechanical pressure. For example: Pressure of the fluid on the lower part of the colon causes constipation of the bowels, and pressure upon the vessels of the kidneys causes the urine to be scanty, upward pressure against the diaphragm crowds the lungs and heart together and interferes with respiration and circulation.

Termination. — This depends largely upon the cause of the dropsy, but when all the different causes are considered, it is not very favorable.

Treatment. — If the accumulation of water is great, threatening suffocation, the patient should be relieved immediately by tapping with a trochar. The operation is exceedingly simple and easy. It consists in making a little cut in the skin, an inch and a half below the navel, and then pushing the trochar, which is about two and a half inches long, into the cavity containing the water. The patient should be in a sitting posture, and the instrument should be pointed a little upwards and pushed as far as it will go, and then the trochar, which is the cutting part, is drawn out of the tube, or canula, the latter being left in. The water, which is usually a straw color, will continue to flow until several gallons are drawn off. As the canula is only about the size of a small goose-quill, it will take some little time for the water to run off. The habit of giving exhausting cathartics and producing copious watery stools to get rid of the dropsy, is very bad, as a person cannot survive very long who has to be relieved in this way. If the kidneys can be stimulated so as to do double or triple duty for a short time, the water can be carried off rapidly and the resort to tapping avoided; but

ordinary remedies to act on the kidneys have never seemed to do much good in such cases. There is one remedy, however, that the author has used a great many times with most happy results. The preparation is as peculiar as it is wonderful in its effects, and is as follows: Common nails, one pound; cider vinegar, one quart. After twelve or fifteen hours, pour the vinegar off of the nails that are yet undissolved, and give the patient a half tablespoonful of this vinegar, holding the iron in solution, and repeat the dose every three hours if it does not offend the stomach, which it does not usually do, but it must be given largely diluted. After a few hours it will commence acting on the kidneys, and will carry off the water in twenty-four hours so that the skin of the abdomen will hang in loose folds. There is nothing like this in such cases. Some cases are entirely cured in this way, while in others the remedy finally loses its effect, as all medicines do in chronic cases where they fail to cure in a reasonable time.

CHRONIC GASTRIC CATARRH.

OTHER names: chronic dyspepsia; drunkard's dyspepsia; chronic gastritis.

This is a chronic inflammation of the mucous membrane of the stomach, attended with thickening of the coats and shrinking away of the glands that furnish the gastric juice. There is pain at the pit of the stomach, more or less loss of appetite, difficult digestion, and depression of spirits.

Causes. — It is often caused by frequent attacks of acute gastritis, but much more frequently, perhaps, by the exces-

sive use of intoxicating liquors. Tea and coffee may be used so recklessly as to cause the worst forms of dyspepsia, and develop chronic gastritis. Irregular meals, indigestible food, or too much of any kind of food may lead, first, to indigestion, and second, to chronic inflammation of the membranes of the stomach, due to the scalding and irritating effects of sour food. Tobacco chewing is another frequent cause.

Symptoms. — The symptoms of this affection are mainly those of a chronic and aggravated case of dyspepsia. As dyspepsia always accompanies chronic gastritis and chronic gastritis accompanies, to some extent, the worst forms of dyspepsia, the two diseases are very hard to separate. The disease under consideration is attended with loss of appetite at times, at others with a gnawing feeling of the stomach, or painful hunger, a feeling of oppression at the pit of the stomach, and also tenderness. There is liable to be swelling due to gases from decomposing food. There is usually more or less vomiting, especially after meals. Drunkards afflicted with this disease are very apt to vomit as soon as they rise from bed. Burning at the stomach, usually called "heartburn," is almost a constant symptom. There is almost always depression of spirits, with a drowsy, sleepy feeling during the day and an inability to sleep at night. These distressing symptoms are largely due to a deficiency in the digestive juices secreted by the stomach, or a defect in the quality of these juices, causing the food to sour instead of undergoing the natural changes from the digestive process.

The sour and scalding fluid that is frequently belched up, sooner or later may cause inflammation of the throat, adding to the misery of the patient.

Termination. — So far as life is concerned this is favorable, but as regards complete recovery, it is not.

Treatment. — The first thing to be done is to cure the accompanying dyspepsia if possible, and as soon as possible, as the great acidity of the stomach, due to indigestion, acts as a constant irritant to every part of the mucous membrane. Meals should be taken regularly, the patient should be in a quiet, cheerful state of mind, if possible take plenty of time for meals, eat only those articles of food that are found by long experience best suited to his case, take no stimulants of any kind, but little sugar or starchy food, drink but little at meals, and eat no fat meat. To overcome the constipation that is one of the aggravating features of this disease, it is best to resort to a fruit and vegetable diet, and eat but little if any meat, provided the fruit does not cause too much pain from an increase of the gases. The constipation cannot be improved, but can only be aggravated and made more distressing by the use of a physic of any kind. It dulls the sensibility of the intestinal canal, requiring the use of stronger and stronger irritants to arouse the muscular, worm-like action of the bowels. For this reason it is obvious that whatever is done in overcoming the constipation must be accomplished through dieting, to the utter exclusion of physic. When a radical change is made in the diet, as when a patient is taken from a heavy meat diet and put almost exclusively upon fruits and vegetables, it may require some little time for the stomach to acquire a tolerance for the new diet, but after a number of days, provided a great deal of fruit is taken, the fruit acid will begin to act as nature's physic, the bowels will begin to move, the stools will become soft and easy instead of hard and knotty, the

colic pains will gradually subside, and a greatly improved condition of the stomach can be hoped for.

It seems there is nothing more rational, more sensible, than the substitution of a fruit diet, which should be un-irritating, for a drug treatment that is always distressingly so in the inflammatory conditions of the stomach and bowels. In this affection we are dealing with inflammation of the mucous lining of the stomach. A physic is an irritant that arouses the secretion of the bowels, and at the same time increases their muscular action so as to empty the entire tract. This irritant cannot get into the bowels without passing through the poor, inflamed, and crippled stomach, and of course must cause great distress to that organ; therefore, what can be more irrational than the use of physic in this complaint?

This is a disease in which the inflamed condition of the stomach tends constantly to increase the dyspeptic difficulty, while the dyspepsia is just as constantly aggravating the inflammatory affection. Therefore anything that will reduce the inflammation will act favorably upon the indigestion, or dyspepsia, and any remedy that will reduce the dyspepsia will favorably affect the inflammation. To save repetition the reader is referred to the treatment given for "acute gastric catarrh," in which the use and value of calomel in divided doses to heal and soothe the inflamed membranes of the stomach are carefully explained.

The use of ignatia in promoting digestion is also explained in connection with that disease, and the whole treatment is applicable to the treatment of chronic gastric catarrh, the disease now under consideration.

PROCTITIS.

OTHER names: inflammation of the rectum ; rectitis ; catarrh of the rectum ; dysentery.

This is a catarrhal inflammation of the mucous membrane of the rectum attended with pain, frequent stools, often of a mucous or bloody character and sometimes mixed with pus. The stools are often hard and lumpy.

Causes. — The principal causes are constipation, the habitual use of physic, hemorrhoids, and diseases of the liver ; but the most frequent cause is piles.

Symptoms. — There is a burning or aching sensation in the rectum, with a desire to go to stool. When on the vessel or seat there is an inclination to bear down or strain, hoping in that way to be relieved from the distress. This sometimes causes falling of the mucous membrane of the rectum, but if it does not, it is liable to cause enlargement of the blood-vessels of the anus and bring on hemorrhoids, or what is the same thing, piles. The stools may be hard and lumpy or consist of a bloody mucus. There is generally more or less sickness of the stomach, fever, and headache. In the most aggravated form of the disease there is great difficulty to pass water, especially in male patients. If the case be protracted, much of the tissue round the rectum is liable to become involved, developing an abscess and leading to fistula in ano, or fistula of the rectum.

Termination. — The disease when uncomplicated is favorable.

Treatment. — The rectum should be thoroughly emptied with a pint injection of warm water. After this has passed, inject another pint and perhaps still another, until the rectum is thoroughly cleansed. The following suppository

will probably do a great deal of good in overcoming the inflammatory condition by keeping the lower bowels in a state of perfect rest : —

Opium, six grains,

Sugar of lead, eighteen grains.

Mix and divide into six powders.

Put each powder into a large capsule and when ready to insert, cover it all over with vaseline and push it in with the point of the index finger, pushing it up into the rectum the whole length of the finger. One of these may be used in this way two or three times in twenty-four hours, but as soon as any of the lumpy, irritating stools come into the rectum they must be removed by warm water injections, after which the lead and opium capsule may be again inserted.

The tormenting desire to go to stool may be relieved by injecting four ounces of cold water, that is, a half a table-glassful. This may be repeated a dozen times in twenty-four hours, as cold water often works wonders in reducing inflammation.

ACUTE GASTRIC CATARRH.

OTHER names: gastric fever; acute indigestion; subacute gastritis; bilious fever. This is an acute inflammation of the lining membrane of the stomach, attended with fever, loss of appetite, sickness of the stomach, and more or less vomiting, pain, and difficult digestion.

Causes. — The disease may be caused by defects in the juices of the stomach that digest the food; for example, the gastric juice may be either deficient in quantity or defective in quality, or both. In addition to this, the food may be improperly masticated, owing to bad teeth, or eating too fast. Then, again, indigestible food may be eaten, the

stomach may be abused with hot drinks, and the worst of all, by intoxicating liquors. To sum it up, and get the causes into a condensed form, it is mainly due to indigestion.

It is an affection that often arises from eruptive fevers, such as small-pox, measles, and scarlet fever. It is well to remember that the skin covering the outside of the body is closely analogous to the mucous membrane lining the inside, and any eruptive fever that breaks through and inflames the outer covering is very liable to break through and inflame the inner lining.

Symptoms. — Loss of appetite, tongue heavily coated, a loathing for food, disagreeable taste in the mouth, constant sickness of the stomach, and occasional vomiting. The vomited matter is, to commence with, undigested food, but may finally be mucous and bilious matter. The inflammatory fever attending this disease is mild, though thirst may be considerable. In most fevers there is a craving for acids, and that is especially the case in subacute gastritis. There are frequent sour eructations attended with pain, tenderness, and heaviness at the pit of the stomach. The bowels are usually loose. There is, many times, a great deal of nervous derangement, anxiety, and melancholy. As the affection is largely due to acute indigestion, it is obvious that errors in diet must surely aggravate it.

Termination. — This is almost always favorable but recovery is slow.

Treatment. — As the stomach is not in a condition to digest food, diet should be almost absolutely withheld for twenty-four hours or more. The vomiting can be best allayed by the use of calomel in small doses as follows: Mercurius dulcis, the first decimal trituration, twenty-five

grains; divide into five powders and give one every hour until all are given.

This trituration must always be placed in the mouth in a dry state, and swallowed with a small quantity of water or some other suitable liquid. The manner in which the drug acts in overcoming inflammation of the mucous membrane, both of the stomach and bowels, is very interesting, and is as follows: If calomel is sprinkled upon an ulcer of the skin or mucous membrane it greatly stimulates the healing process, but should the surface involved be very extensive, the crude drug could not be applied to every part of it without the risk of salivation. In subacute gastritis the whole mucous lining of the stomach is usually involved, and it is desirable to bring the drug in contact with every part of it. The system will not tolerate enough of the crude drug to allow this to be done; therefore it is mixed with nine parts of sugar of milk, so as to spread it over ten times as much surface. The advantages of the trituration over the crude drug are twofold: first, ten times more surface can be reached by the trituration than by an equal amount of calomel not diluted with the sugar; second, in the highly irritable condition of the stomach that exists in gastritis, the calomel is too severe, and to have the happiest effect must be reduced in strength by mixing it with the sugar of milk. As a healing stimulant it has only one-tenth of the irritating properties of pure calomel, and therefore it stops the sickness of the stomach by healing and soothing the inflamed membrane, and soon subdues the inflammation. After it passes out of the stomach it stimulates the secretions of the whole intestinal tract, and, acting as a physic, removes all irritating matter, such as imperfectly digested food, and in that way further con-

tributes to relief of the stomach. After the sickness of the stomach and other acute symptoms have subsided, the following is by far the best remedy with which to stimulate the digestive process: Extract of *ignatia*, from one-half to three-quarters of a grain, according to the size of the patient, three times a day before meals.

It is always given in pill form, and if the patient only weighs from one hundred pounds to a hundred and seventy-five, a half-grain pill is sufficient, but if more than one hundred and seventy-five, three-quarters of a grain must be given.

GASTRIC ULCER.

OTHER names: perforating ulcer; peptic ulcer; chronic gastric ulcer. This is a solution of continuity affecting the mucous membrane and some of the other coats of the stomach. In plainer language, it is a hole in the mucous membrane and other coats, caused by ulceration. It is attended with pain and deranged digestion and sometimes vomiting of blood.

Causes. — It is probably due to self-digestion of the stomach at the seat of the ulcer.

Symptoms. — The symptoms of indigestion are very prominent in this affection. There is constant pain in the stomach, which is increased by taking food. Vomiting is almost a constant symptom and may be greatly aggravated by eating. As the ulcerative process sooner or later destroys a blood-vessel, vomiting of fresh blood in large quantities is liable to occur and is very characteristic of gastric ulcer. If it is not vomited for some time after the hemorrhage occurs, it will of course be dark instead of bright red. The ulcer is slow in forming, and it may be a

year before it is fully matured. Sometimes, however, it develops rapidly, perforates all the coats of the stomach, and ends in death by perforation and inflammation in a few weeks.

Termination. — This is more or less unfavorable. Many cases die and many recover.

Treatment. — The stomach should be kept in a state of absolute rest if possible. In order to do this, beef, chicken, or mutton broth may be given several times a day by the rectum, but if for any reason this cannot be done, a milk diet by the mouth may be necessary. A quart of milk, or even more, may be given in twenty-four hours, by giving only a few ounces at a time, as it will be better borne when given in this way.

For hemorrhage that may occur any time, it is best to give fluid extract of ergot in teaspoonful doses every hour until it is arrested.

In order to hasten the healing process in the ulcer, give subnitrate of bismuth in twenty-grain doses, three or four times per day. It may be mixed with a little sugar, placed in the mouth, and then washed down with a swallow of water.

ACUTE GASTRITIS.

ANOTHER name : toxic gastritis.

This is an acute and severe inflammation affecting the entire stomach, including the mucous membranes and muscular coats, and is attended with violent pain, incessant vomiting, the vomited matter being usually bloody mucus. To these distressing symptoms are added those of a fatal collapse.

Causes. — It is due to swallowing corrosive poisons, such

as corrosive sublimate, carbolic acid, or any other drug that burns and inflames the stomach.

Symptoms. — Soon after the poison is swallowed there is deathly sickness and constant vomiting. After the stomach is emptied of all food, portions of the mucous membrane that have been destroyed by the irritant are thrown up, and with them clots of blood, or bloody mucus. There is a great depression of spirits, weak pulse, and skin covered with a cold sweat, and yet there is a terrible heat at the pit of the stomach and a burning thirst that nothing will satisfy. There is frequently a burning pain in the mouth and throat, as well as the stomach, and terrible purging, all from swallowing the corrosive poison.

Termination. — Recovery is very doubtful, death being due to a great shock upon the nervous system and chemical destruction of the stomach.

Treatment. — So far as the treatment is concerned in this affection, almost everything depends on the nature of the drug causing the mischief.

If it be a strong acid of any kind, excepting carbolic acid, bicarbonate of soda (common baking soda) should be given immediately in water, using a heaping teaspoonful to a half a glass of water and giving a swallow every minute until the gas ceases to rise from the stomach. As long as the gas rises the soda, however strong it may be, will not injure the stomach, as it is in a chemical fight with the acid. Should the poisonous drug be an alkali such as caustic potash, caustic soda or lye, used in washing, the best remedy is vinegar, and should be given diluted in water as long as gas rises from the stomach.

Poisoning from drinking a solution of concentrated lye, or lye of any kind, is an accident that very frequently

occurs among young children, who are disposed to drink everything they can get hold of. The treatment in all such cases is vinegar, given as above directed, and followed, after the gas ceases to rise, by a tablespoonful of sweet oil. Should lye be swallowed by a child and no vinegar at hand, a couple of tablespoonfuls of sweet oil should be given immediately, which will unite with the lye, forming a crude, imperfect soap. Melted butter or lard, or grease of any kind, can be used in the place of the oil and will have the same effect on the lye. After the action of the poison is destroyed in one of the above ways, the stomach may be left in an inflamed and irritable condition with constant tendency to vomit. In such cases solid food will not be borne by the stomach, and the diet should be milk, gruel, or animal broths. If carbolic acid should be swallowed, an alkali, such as baking soda, will do no good, as the drug is not really an acid. Oil is the best antidote for carbolic acid, and one or two tablespoonfuls of sweet oil should be given immediately. Melted butter or lard will also answer, but if much of the terrible poison is swallowed the nervous system will be overwhelmed by the shock, and death cannot be long delayed.

See chapter on poisons.

FEVERS.

FEVER is a condition characterized by a rise in temperature of the body, the heart's action being quickened, tongue usually dry or less moist than normal, and a general deranged condition of the secretions.

The one symptom that belongs to all fevers and without which there can be no fever, is a rise in temperature above

the natural, which is said to be ninety-eight and a half degrees F. It is impossible for any one to determine, accurately, the degree of fever that a patient has, without using a thermometer. When the temperature is only about one degree above the natural, it is proper to say that such patients are a little feverish. If the temperature rises to a hundred and one, or a hundred and two, the patient is said to have "slight fever"; if a hundred and three to a hundred and four, high fever, and when it reaches a hundred and five, a burning fever. There are but few conditions, either in inflammatory or common fevers, in which the temperature rises above one hundred and six.

The height of the fever as witnessed by the thermometer, the experienced touch of the physician, nurse, or mother, affords some information regarding the severity of the attack and always deserves proper consideration; but in the sick brashes and gastric disturbances of children, the intense fever that accompanies them is not necessarily a dangerous symptom, as the organism of childhood is in a vigorous, active, and keenly sensitive state, and responds so readily and violently to disorders of digestion and other minor ailments as to create unnecessary alarm. For example: A child after eating a very hearty supper may go to sleep apparently in a state of perfect health, and before morning may awake with a burning fever and intense thirst, and seem to be suffering from some terribly dangerous disease. Sooner or later vomiting occurs, and perhaps purging also, the offending matter in the form of undigested food is gotten rid of, and by morning the child is comparatively well. Such cases are constantly coming under the observation of practicing physicians.

GENERAL MANAGEMENT OF FEVERS.

BEFORE considering special fevers, it is thought best to give some plain and important facts regarding the general management of fevers. The most distressing feature of all fevers is the high temperature of the body, as its tendency is to dry up the secretions of every organ. This leads to constipation of the bowels, derangement of the liver and pancreas, and, consequently, to a diminished power to digest the food. The system, as if aware of this condition, does not call for food, and naturally enough there is no appetite. The urine is scanty and high colored, for the same reason that all the other secretions are limited in quantity, and in almost all cases of high fever attended with delirium, the latter is mainly due to a retention of the salts of the urine in the blood, known as uremic poisoning.

From the foregoing, the obvious indications in dealing with fevers of all kinds are to reduce the temperature and hold it as near the degree of natural heat as possible. The manner in which this is to be effected depends greatly upon the character of the fever, whether due to malaria, the typhus, or typhoid germs, the specific poison of eruptive fevers, or inflammation, the latter being called inflammatory fever. In the great majority of general fevers it is impossible to reduce the temperature, to any material extent, by any drug treatment. In other words, the remedies given in the treatment of fever, except in the inflammatory type, affect the temperature but little, if any. This suggests other remedies besides drugs, in reducing the burning temperature of typhoid and other fevers that dry up all the secretions and tend to a fatal termination. Just in proportion as the fever can be lowered, all the secretions can be

conserved. For example: Should there be six degrees of extra temperature, the organic secretions would be consumed twice as fast, and the tendency to a fatal termination twice as great as would be the case if the extra heat were but three degrees. Therefore every degree of fever that can be dispensed with, saves materially the natural secretions and the vitality of the patient.

One of the eternal principles of nature is this: That the evaporation of water reduces temperature by absorbing the heat. Therefore if water is spread over the surface of any body, animate or inanimate, the temperature of that body is immediately lowered. If the body should be a physical one, that is, a human being, and such being should have a high fever, would not the evaporation upon the surface of the body have a direct tendency to lower the fever? It certainly would. This leads us up to a consideration of the power and efficacy of water in the treatment of fevers generally.

There are five ways in which water can be used to great advantage in lowering the temperature:—

First, Bathing in a bath-tub.

Second, By using the wet pack, consisting of a dripping wet sheet or towels.

Third, The shower, or spray bath.

Fourth, The sponge bath.

Fifth, By drinking large and frequent draughts of cold water.

The use of the bath-tub, even where such a convenience is obtainable, is limited. The patients are frequently too weak to be bathed in this way, and even if not very weak, they are liable to become so by too long and too frequent ablutions. In the early stages of severe fevers, while the

patients are yet comparatively strong, the bath-tub can be used to great advantage when followed by the proper use of the spray or wet sponge. Where proper facilities are provided for taking care of the extra water and saving the bed clothing from getting wet, the spray bath, such as is used by ladies in watering house-plants, may be used several times a day with the happiest results. As all fevers are attended with evening exacerbations, that is, an increase of temperature of one or two degrees in the evening, this is the proper time for the water treatment, in whatever form is best suitable to the case. If used at all, it is best to use it freely during the three or four hours of the day in which the fever is highest.

INTERMITTENT FEVER.

OTHER names: ague; chills and fever; swamp fever; malarial fever.

This is a paroxysmal fever consisting of three stages, namely, a cold, a hot, and a sweating stage. The sweating stage is followed by a complete intermission, varying in length according to the character of the attack. Until this is established by the recurrence of another chill, it is impossible to tell whether the type is quotidian, in which the chill occurs every day, the tertian, in which it occurs every other day, or the quartan, in which it occurs on the first and fourth days.

Causes. — Malarial bacillus. These malarial-fever germs are true parasites, but how their effects manifest themselves periodically, and that, too, with such wonderful regularity, it is impossible to tell. There may possibly be several

species of the parasites, each one capable of developing a special type of the disease, as tertian, quartan, etc.

Varieties. — There are many distinct types of this disease. First, the quotidian, with a paroxysm every day; second, the tertian, with one every other day; third, the quartan, with a paroxysm on the first and fourth days; fourth, octan, when the paroxysm occurs weekly; fifth, the double quotidian, in which two paroxysms occur daily; sixth, the double tertian, with two paroxysms every second day. The dumb ague is an irregular form of the disease in which one of the stages, either hot, cold, or sweating, is absent. This is usually the cold stage. Sometimes two stages are absent, the sweating stage alone showing itself.

Symptoms. — Each paroxysm has three stages, the cold, hot, and sweating.

The cold stage begins with premonitory symptoms such as headache, yawning, sickness of the stomach, followed by a chill. The teeth rattle, the nails and lips become blue, the skin pale and rough like goose flesh, while there is great thirst and internal fever. The thermometer during a severe chill often ranges from one hundred and two to one hundred and four F. The duration of a chill is from fifteen minutes to an hour.

The patient gradually passes out of the cold stage into the hot by the shivering ceasing, the surface becoming first warm, and then hot and flushed, the temperature sometimes reaching a hundred and six or even more. The pulse is full and strong, there is headache with nausea and great thirst, the skin being perfectly dry and swollen. The urine is always scanty and high colored, and the hot stage lasts from one to eight hours or more, according to the length and severity of the cold stage.

For example: if the cold stage is long and severe, the hot stage will be correspondingly so.

The sweating stage comes on gradually, its first appearance being on the face and forehead, and then spreading over the entire body. The temperature rapidly returns to the normal standard, the patient is restored to a condition of comfort, and drops into a refreshing sleep. The duration of the sweating stage is from one to four or five hours. From the time the sweating stage ceases until the chill of the next paroxysm begins, is called the intermission. During this time, the patient is seemingly in a state of usual health.

Termination. — Almost always favorable.

Treatment. — The treatment consists, first, in the use of remedies during the premonitory, or warning, symptoms of the chill, either to postpone or modify it. This may be effected by giving a full dose of morphine as soon as the warning symptoms appear. Just in proportion as the cold stage is modified as regards duration and severity, the hot and sweating stages will be. During the hot stage, cool drinks and frequent sponging with cold water will afford the greatest comfort. The sweating stage seldom, if ever, requires any treatment.

All efforts to break up this disease and restore the patient to a condition of perfect health should be commenced immediately after the cessation of the sweating stage, or, in other words, during the intermission. As before remarked, until the second chill occurs, the type of the disease cannot be determined, and, therefore, the length of time in which to give quinine or other remedies, to prevent another chill, is entirely unknown. For this reason the time is precious. The best remedy in the

acute form of the disease is sulphate of quinine, which may be given in three-grain doses every three hours until fifteen grains are given. If the next day the dreaded chill fails to occur, it is reasonably fair to presume that the quinine has prevented it, but at least twelve or fifteen grains of the drug must be given on the second day to guard against the tertian form of the disease. If by the third or fourth day there is no chill, it is evident that the attack is broken up. The quinine, however, should be continued in three-grain doses three times per day for about a week. Regarding the amount of quinine necessary to give in order to break up and permanently subdue an attack of ague, almost everything depends upon the amount of malaria affecting the district in which the patient lives. If this is slight, as shown by the limited number of cases, the amount of quinine necessary to break up and permanently cure an attack of ague is correspondingly small. In such cases nine grains of quinine per day will arrest the disease in three or four days, and by giving about six grains per day for four or five days longer, the chills will not return.

Unhappily, if a case of ague is trifled with by giving too little medicine until it is allowed to return several times, the disease becomes chronic and obstinate, the skin more or less yellow, and, sooner or later, the patient has an enlarged spleen. Under such poor management patients gradually drift into conditions that are incurable by ordinary means, and start out on a health-hunting journey, but the ague stubbornly continues, regardless of the usual remedies. In such cases, whether the patient abandons the malarial district or not, the following prescription will effect a permanent cure :—

Sulphate of quinine, one drachm,
Arsenious acid, one grain,
Sulphate of strychnine, one grain,
Aromatic sulphuric acid, ten drops,
Extract of gentian, a sufficient quantity.
Mix and divide into twenty pills.

For an adult, give one pill before each meal. The cases are exceedingly rare in which this prescription fails to cure, however chronic and obstinate they may be. No one except an accomplished druggist should ever be trusted to put up this prescription.

REMITTENT FEVER.

OTHER names: typho-malarial fever; bilious fever; bilious remittent; marsh fever. This is a paroxysmal fever that may come on exactly like ague, that is, by a chill followed by a hot and a sweating stage, but usually the chill is not so long and pronounced as in ague, and the sweating stage is sometimes absent.

It is characterized by an exacerbation or aggravation every day, usually in the evening, after which there is a remission or falling of the fever, generally in the latter part of the night and forenoon, and it is during these remissions that patients must get their sleep. During the intense hot stage, there is severe headache and irritability of the stomach. In many cases there are sharp pains in the chest like pleurisy, always occurring, if at all, during the hot stage.

Cause.—The presence in the blood of a parasite or malarial bacillus.

Symptoms.—There is a moderate chill to commence

with, the temperature rising one or two degrees above the normal, tongue dry and coated, the coating usually of a lightish brown color, oppression at the pit of the stomach, headache, and pains more or less over the entire body, but mainly about the chest.

Hot stage. — During this stage there is often vomiting, the coating of the tongue heavier and somewhat darker than in the cold stage, pulse full and often rising to a hundred and twenty, injected eyes, flushed face, severe headache, pains over the body, hurried respiration, and a temperature ranging from a hundred and four to a hundred and six. The bowels are usually costive, stools dark, urine scanty and high colored, the skin frequently yellowish. During the highest part of the fever there is often delirium.

Sweating stage. — Sometime within twenty-four hours all the above symptoms mainly subside, and moderate sweating commences. The pulse drops ten or fifteen per minute, the headache and vomiting cease, and the fever falls about two degrees. This is called the remission, but it must be remembered that this stage is never free from fever.

After several hours, the symptoms of the hot stage return, usually without the chill, this stage always being known as the exacerbation, which is followed again by the remission, the entire course of the disease being simply a series of exacerbations and remissions.

Authorities differ regarding the duration of this fever, probably owing to the different localities in which they have practised, but the fever rarely gives way under fourteen days. Just in proportion to the darkness of the tongue, with red edges, is the tendency to typhoid, and sometimes at the end of about two weeks, when there is reason to hope for convalescence, the tongue takes on a

dark brown coating, lips become parched with a tendency to bleed, and a black, gum-like deposit appears upon the teeth, showing that the case has drifted into a malignant form of typhoid.

Termination. — Usually favorable.

Treatment. — The preponderance of authority favors the administration of quinine during the remissions, in order to break the force of the paroxysm and shorten the duration of the disease. The author, during a very wide experience with this disease in malarial districts of the west, followed the quinine treatment for a long time, giving about ten grains during each remission, and failed to note any decided improvement from such a course. On the other hand, quinine given in this way seemed to increase the headache and nervousness that usually attend the hot stage. In this way he was led to try the expectant plan of treatment, which simply means nothing, so far as medicine is concerned. It consists in waiting for the disease to run its course, while sweetened water, or something else equally valueless as a medicine, is given to satisfy the patient and friends. He found that most of the cases treated in this way ran a milder course, and were not a day longer in duration than those treated with quinine. In all cases, due attention was paid to the condition of the bowels, kidneys, and other organs of the body. There is really but little to do in the treatment of a case of bilious fever except to keep the bowels, skin, and kidneys in a healthy state. If there is irritability of the stomach it is best allayed by small doses of calomel, given in the following form: *Mercurius dulcis*, the first decimal trituration, twenty grains, to be divided into five powders, and one powder given every hour. The powders are to be placed in the mouth dry, and swallowed

with a tablespoonful of water. After they work off, which they usually do in ten or twelve hours, the irritability of the stomach and intestinal tract ceases. The urine is always scanty and high colored, with a tendency to blood-poisoning by retention of the salts that should be excreted by the kidneys. There are two ways to facilitate the action of the kidneys and get rid of the poisonous effects of the salts, that are one of the greatest sources of delirium in the severest types of fever. One is to give a diuretic to act directly upon the kidneys, and the other is to allow the patient to have all the water he can drink, in order to wash the salts out of the body through the kidneys. Hence the following:—

Sweet spirits of nitre, two ounces,

Acetate of potash, one-half ounce,

Water, two ounces.

Mix, and give a teaspoonful every two or three hours when awake.

During the hot stage there is usually a great deal of thirst and, unless there is irritation of the stomach and bowels with a tendency to diarrhœa and vomiting, the patient ought to drink as much water as he desires. The use of the sponge bath during the hot stage has a tendency to lower the fever by the direct application of cold to the surface, and also by maintaining a healthy action of the skin and favoring perspiration. When delirium occurs in the hot stage, it is best controlled by the constant application of cold water to the head. The practice of putting a wet towel on the forehead is bad, as it keeps the head hot, and does more harm than good. The water should be applied with a sponge very freely all over the head, saturating the hair thoroughly, and causing its rapid evaporation by the vigorous use of a fan.

TYPHOID FEVER.

OTHER names: enteric fever; gastric fever; nervous fever; abdominal typhus; autumnal fever.

This is an acute infectious fever that is self-limited.

Causes. — It seems that the predisposing causes are age and heredity. It most frequently occurs between the ages of fifteen and thirty, and is rarely seen in those over fifty.

Some families are especially liable to the disease, and this fact establishes heredity as a predisposing cause.

A special germ or bacillus, known as the typhoid germ, is the exciting cause.

The poison of typhoid fever, through which it is mainly propagated, is in the stools and expectorations. The atmosphere is not impregnated with these germs, but the poison enters the system through food and water. The stools and expectorations should be disinfected with a solution of carbolic acid, using about four tablespoonfuls of the acid to a quart of water.

Symptoms. — The fever comes on gradually, preceded by several premonitory symptoms, such as dizziness, headache, especially in the back of the head, nervousness, with inability to sleep, deranged digestion, low spirits, and general weakness, followed by a chill or chilly feeling. When the patient comes under treatment he is wholly unable to tell when the attack began. In malarial districts, however, the disease occasionally sets in suddenly with a chill, followed by high fever.

What is known as the premonitory or warning symptoms may last ten or twelve days, but usually this stage is much shorter.

During the first week of the fever, the temperature gradually increases, the pulse becomes more frequent, the coating of the tongue heavier, more headache, the abdomen enlarges, and there is tenderness in the right side and frequent gurgling of the bowels in that locality. About the end of the first week in the well-marked cases, a few reddish spots appear upon the chest, back, and abdomen.

During the second week, all these symptoms increase in severity, the fever becoming higher, pulse more frequent, abdomen more distended, and frequently delirium at night. There is headache, more or less stupor, some cough, jerking of the muscles, and dark accumulations upon the teeth, and there may or may not be diarrhœa. The coating often disappears from the tongue and the mouth becomes so dry that it is difficult for the patient to speak. Deafness frequently exists.

During the third week, the fever becomes remittent. It continues quite as high in the evening but is decidedly lower in the morning, while all the other symptoms remain about the same. By the end of the third week, however, there is a general improvement.

Unfortunately, in quite a number of cases, all the symptoms grow worse during the third week, the tongue and lips becoming dry and cracked, both teeth and gums covered with a black deposit, called "sordes," the pulse and respiration quicker, the urine and stools are passed unconsciously, and the case ends fatally.

In the great majority of cases, patients that survive until the fourth week without any of the desperate symptoms referred to above, recover. Generally the symptoms of improvement set in during the third week, so by the fourth the fever is greatly reduced, being almost absent in

the morning, the pulse is less frequent and stronger, the tongue clean and moist, and a general but slow convalescence is established. Diarrhœa is usually supposed to be one of the most dangerous symptoms, but the author has found constipation to exist in many malignant types of the disease.

Termination. — The favorable indications are, moderate fever, slight diarrhœa or constipation, and delirium, if at all, of moderate character. The most fatal period of the disease is during the third week.

Treatment. — There are two great sources of danger in this disease. One is from ulceration of the bowels and a discharge of their contents into the cavity of the abdomen, causing fatal inflammation, death usually occurring within twenty-four hours. In order to prevent this termination it is best to keep the bowels in a state of perfect rest, if possible, so as to allow the ulcers, if present, to heal. For this reason the diarrhœa, if any, must be controlled, and it is much better in such cases if the bowels don't move for two or three days. To arrest the diarrhœa and keep the bowels in condition to favor the healing of ulcers, give the following: —

Powdered opium, ten grains,

Sugar of lead, twenty grains,

Mix and divide into ten powders, and give one every five or six hours if needed.

The second source of danger is exhaustion, caused by the intense fever and all the prostrating influences of the poison producing it; and just in proportion as the fever can be reduced in severity, the tongue and mouth kept moist, the accumulations upon the gums and teeth lessened, the delirium prevented, and good refreshing sleep

procured, the danger will be diminished. A great deal of the delirium in typhoid fever is caused by a retention in the blood of certain salts that should be discharged by the kidneys. On this account it is best to keep up a gentle, stimulating action upon the kidneys during the entire fever, care being taken to avoid offending the stomach with too much medicine. To act on the kidneys give the following : —

Sweet spirits of nitre, two ounces,
Acetate of potash, a half ounce,
Water, simple syrup, of each two ounces.

Mix; give a teaspoonful every three hours when awake.

There is nothing so effectual in reducing the fever and controlling the distressing symptoms associated with it, as the direct application of cold to the body, and water is the best possible form in which it can be applied. If the water treatment is commenced in the early stage of the fever, while the patient is comparatively strong, the bath-tub is by far the best means of applying it. Experience has proved that when the temperature in typhoid first reaches a hundred and two, it is best to put the patient in a bath-tub with the water at a temperature of about seventy, allowing the water to come up to his chin, while gallons and gallons may be poured upon his head. Meanwhile he is rubbed all over with a coarse towel, so as to excite the circulation of the skin. If not very weak, the bathing should be kept up for twenty minutes. This generally reduces the temperature from one to two degrees, and the most of the bathing should be done during the part of the day at which the temperature is highest. The injurious and prostrating effects of the fever are mainly due to the evening exacerbations, in which the temperature

is about two degrees higher than the rest of the day. This is when the secretions are dried up, when the tongue and lips become dry and parched, and the dark accumulations appear on the teeth and gums.

If in every case of typhoid fever the temperature can be held down during three, four, or five hours of the evening aggravation, thousands of cases that would otherwise end fatally can be saved. There is nothing of any value in lowering the temperature in such cases, but water. After the patient is taken from the bath-tub, should the fever soon rise again, water should be applied freely all over the body by a spray such as would flow from a small watering-pot. In order to apply water in this way, the patient should lie upon an oil-cloth or rubber sheet, and the waste water be lifted by a sponge. If, in spite of the frequent use of water in this way, the fever is not held down, a sheet dripping wet with cold water should be spread over him, and changed as often as necessary by dipping it again in cold water. The idea that must be kept in view is this: Whenever the temperature reaches a hundred and four or five for a few hours during every day, the tendency is very dangerous, and every possible effort must be made to reduce the fever and hold it down to one hundred and one if possible. Water must be used in the various ways mentioned above, and will often succeed when everything else fails.

To prevent the chilly feeling and bluish color of the skin that sometimes occur during bathing, vigorous rubbing of the body with a moderately coarse towel is often necessary. After the temperature is reduced by water, the patient frequently falls into a refreshing sleep.

If delirium of an active character exists, it is during the

part of the day or night in which the fever is highest; and it is best to have a wash-tub close to the side of the bed, hold his head over it with his face inclined downwards, and slowly pour several pitchers of water upon it, thoroughly bathing his hair and every part of the scalp. If not too exhausting, this should be kept up for ten or twelve minutes at a time.

To secure refreshing sleep, the following may be given when necessary, and acts like a charm:—

Fluid extract of valerian, a half ounce,
Bromide of potassium, half an ounce,
Water three ounces.

Mix and give a teaspoonful, then turn down the lights, keep the room perfectly quiet, and he will usually fall asleep within an hour and may sleep all night.

CEREBRO-SPINAL MENINGITIS.

OTHER names: cerebro-spinal fever; spotted fever; cerebro-spinal typhus. This is a malignant fever, often prevailing epidemically, attended with terrible headache, vomiting, severe contractions of the muscles of the neck, extreme sensitive condition of the skin and muscles, causing the patient to scream when handled; frequent delirium, stupor, and more or less coma, with frequently an eruption of the skin in the form of dark red spots. Excepting the epidemic cases, the eruption that has given rise to the term "spotted fever," is not often found. The disease is due to microbes, resembling those found in pneumonia and erysipelas. Bad sanitary conditions seem to favor the development of the malady, which occurs most frequently in the winter, usually attacking children.

Symptoms. — The common form begins suddenly with a chill, severe headache, nausea, vomiting, dizziness, and extreme weakness. In a short time, sometimes within a few hours, the muscles of the neck become rigid, with great pain upon moving the head, the rigidity or spasmodic action soon extending to the back, when the patient is curved in the back somewhat like a bow, and, like cases from strychnine poisoning, disposed to rest upon the buttocks and top of the head. There are liable to be severe cramps in all the muscles of the body, especially the legs, and spasmodic twitching of the lips and eyelids. Convulsions frequently occur. Patients cannot bear the light; deafness, with loss of smell and taste, are liable to follow. The eruption generally develops between the first and fifth day. The disease reaches its meridian in point of severity within eight days, gradually passes into a comatose state that is fatal, or improved symptoms show themselves, to be followed by a slow and tedious recovery.

Termination. — Not very favorable, as more than half the cases die in a severe epidemic.

Treatment. — The medical profession has always seemed to be at sea in the treatment of this disease and has never settled on any well-defined plan. The disease germ of spotted fever is similar to that of pneumonia, and like the pneumonic germ, develops a violent inflammatory fever, the pulse being, in the early stages, like the pulse of pneumonia. The experience of the author has shown that most cases of pneumonia, if treated early in the disease with veratrum viride, can be broken up within twenty-four hours; that the fever, having been brought down, and with it the pulse to the normal standard, does not reappear, and the patient is actually restored to health.

Therefore, as cerebro-spinal meningitis develops suddenly like pneumonia, it has, like the latter, a proper period in which to give the same sedative, veratrum, which may be given in doses of the tincture as follows: From one-half to one drop every hour for five or six hours, commencing immediately after the initial chill. If, by this means, great sickness of the stomach with efforts to vomit occurs, the fever will very probably fall and the pulse also. The skin will become cold and clammy, drops of perspiration will stand upon the face and forehead, and the patient will seemingly be in a state of fatal collapse. In such cases a half tablespoonful of whiskey in a little sweetened water will hasten the reaction which always follows the use of veratrum in this way, whether the stimulant is given or not. Sometimes an attack of this disease is broken up by the timely employment of the sedative. In the great majority of cases, however, it does not succeed in aborting the affection, but it certainly breaks the force of the inflammatory action and lessens the organic changes that would otherwise follow. To put it in plainer language, it is calculated to modify the disease and cause it to run a more favorable course. After a reaction from the first effects of the drug, the veratrum should be resumed and given for a few hours, every hour as before, and then every two hours. By keeping the patient under the influence of this sedative more or less for forty-eight hours, which is really the formative stage of the disease, great good can be accomplished.

It is believed that a great many cases that would otherwise result fatally can be saved in this way, that it renders the distressing effects of the blistering treatment unneces-

sary, and prevents, to a considerable extent, deafness and permanent mental derangement. In such a malignant disease, however, it is not claimed that any treatment will save all the cases, but the sedative treatment as above given affords the greatest hope. The time may come, later in the disease, as it does where the sedative is never used, for a supporting treatment, such as tonics and stimulants. They are to be given as in weakened conditions from other diseases.

SIMPLE CONTINUED FEVER.

OTHER names: irritative fever; ephemeral fever; synocha; febricula.

This is a fever lasting from twenty-four to forty-eight hours, without any decided remissions, not the result of a specific poison, seldom fatal; but when death occurs it shows no anatomical changes characteristic of the disease.

Causes. — Anxiety, grief, overwork, mental or physical, mental perturbation, from whatever cause, but the most probable of all, excesses in eating and drinking, resulting in a distressing attack of indigestion. It belongs mainly to childhood.

Symptoms. — The attack is sudden, often coming on with a chill, followed by a strong reaction and rapid rise of temperature, high pulse, dry skin, great thirst, foul tongue, bowels costive, urine scanty and high colored, usually headache and sometimes nausea and vomiting. The temperature is liable to rise to a hundred and three or more, and to be attended with delirium.

Termination. — Almost always favorable, the disease running its course, as a general thing, in from twenty-four

to forty-eight hours, but in some cases lasting six or seven days.

Treatment. — If the symptoms of indigestion are prominent, and especially if there is diarrhœa or colicky pains in the bowels, give a five-grain powder of the first decimal trituration of *mercurius dulcis*, every hour, until five are given. Place the powder upon the tongue in a dry state, and wash it down with a tablespoonful of water. The powders will work off in eight or ten hours, and the gastric and intestinal disturbance will usually cease.

Where there are severe nervous symptoms, with inability to sleep, the following can be given with the happiest results:—

Fluid extract valerian, two drachms,
Bromide potassium, two drachms,
Water, three ounces.

Mix and give from a half to a teaspoonful, according to the age of the child, at bedtime.

HAY FEVER.

OTHER names: hay asthma; autumnal catarrh; rose fever.

This is a specific inflammation of a catarrhal character affecting the large air passages, including those of the nose, throat, and tubes of the lungs, with spasmodic contraction of the muscular walls of the latter. The affection occurs in the latter part of summer or early autumn, and is attended with a flow of mucus from the nostrils, cough, and more or less difficulty of breathing.

Causes. — The most common cause is an inherited predisposition to be morbidly sensitive to the perfume of

flowers or whatever it is that causes the affection. Persons in whom this tendency exists have paroxysms of hay fever that are supposed to be due to the inhalation of the pollen dust of various grasses, roses, or other flowers.

Symptoms. — The first appearance of the trouble is frequently a flow of a watery mucus from the nose, the smarting of the eyes, sneezing, and sore throat. A little later the larynx and tubes of the lungs are affected, the voice becomes husky, and there is a wheezing cough with difficulty of breathing, the latter occurring in paroxysms like attacks of asthma. The affection is a series of paroxysms and remissions for a month or more, during which there is almost constantly an irritating bronchitis. After it is once developed it is liable to continue till cold weather destroys the pollen dust. It is impossible to tell what plant or flower exercises the most influence in exciting the disease, and it may be the combined effect of many flowers.

Termination. — The affection in itself never proves fatal, but may develop incurable asthma and chronic bronchitis.

Treatment. — The most satisfactory treatment is a change of climate each season before the hay fever sets in, and going to a high mountain climate where the fever-producing plants do not exist. Almost any part of the Rocky Mountains seems to afford a complete immunity from hay asthma.

It is claimed that Dover's powder, given in six-grain doses three or four times in twenty-four hours, has often broken up an attack of hay fever. It is claimed that quinine in five-grain doses, given three times a day for several days and commenced two or three days before the expected attack, will prevent it. The paroxysms are always relieved by the application of a four per cent solution

of cocaine to the nostrils by means of an atomizer. The application may be repeated every three or four hours during the day. If the effects of the drug wear off to some extent, the strength may be increased to a six per cent solution.

RELAPSING FEVER.

OTHER names: *febris recurrens*; famine fever; bilious typhoid.

This is an acute, infectious disease, is contagious, epidemic, and self-limited. The fever paroxysm lasts about six days, and then there is a complete intermission to be followed by a relapse, the second paroxysm being about the same as the first, both in duration and gravity.

Cause. — A specific poison. It seems to flourish most extensively in the crowded, filthy, and unhealthy districts of cities.

Symptoms. — It has no premonitory or warning symptoms. The attack is sudden, the fever running up from one hundred and two to one hundred and four, pulse frequent and rather weak, headache, nausea, and vomiting, with sharp pains in the limbs and muscles, especially the legs. On the second day there is a feeling of fulness and pressure in the right and left sides, caused by swollen liver and spleen. The deranged function of the liver manifests itself by the appearance of jaundice. The first paroxysm ends on the seventh day in profuse perspiration; the second ends about the thirteenth or fourteenth day, the symptoms being somewhat milder. There may be several relapses.

Termination. — Generally favorable.

Treatment. — The disease cannot be aborted by any

known treatment. Quinine has been used extensively to prevent relapses, but never succeeds. For the nausea and vomiting, and also to arouse the secretions, five-grain doses of *mercurius dulcis*, in the first decimal trituration, may be given every hour until four are taken. They are to be put in the mouth dry, and washed down with a tablespoonful of water. They will produce a slight action upon the bowels, and almost always allay the sickness. If there is great weakness during the last days of the affection and after the fever has subsided, quinine may be given in one-grain doses, and with each dose a tablespoonful of port wine.

TYPHUS FEVER.

THIS fever is known by a half-dozen different names, as follows: ship fever; contagious fever; jail fever; petechial fever; exanthematic typhus; spotted fever.

It is an acute, epidemic disease, very contagious, develops suddenly, characterized by extreme depression of the vital powers, disagreeable odor, an eruption of rose-colored spots, sometimes being but few in number, while in other cases they cover the entire body so thickly that they almost touch each other. The favorable cases terminate in about fourteen days in profuse sweating. The disease is due to a germ regarding the nature of which but little is known, and yet it is unfavorably influenced by bad sanitary conditions.

It is rarely seen in the United States, except among recently arrived emigrants, and soldiers in the army. The author, who was an army surgeon, saw a great many cases in the General Field Hospital, Atlanta, Georgia.

Symptoms. — Commences with a chill, followed by in-

tense fever, the temperature frequently reaching a hundred and five F. within a few days, pulse rapid and bounding, soon becoming small and weak ; severe headache and usually delirium. From the fifth to the seventh day, red spots appear on the skin that do not disappear on pressure ; there is great prostration, dizziness, trembling of the hands, also tremor of the muscles, and generally constipation of the bowels. Within about two weeks the temperature subsides suddenly, followed by a speedy recovery.

Termination. — In many cases unfavorable, except when the disease occurs in youth under somewhat favorable sanitary conditions. The best authorities agree that the mortality ranges from five to thirty-five per cent.

Treatment. — As the disease is emphatically contagious, each patient should be isolated to prevent contagion.

The high fever is best controlled by cold sponging, the cold wet pack, or by putting the patient in the bath-tub. When placed in the tub a gentle shower of water upon the patient, the temperature being that of summer heat, will give the happiest results. The bath may be continued for ten or fifteen minutes at a time, if the patient is not too weak. For the great debility, brandy or whiskey may be given every half hour in doses of one or two teaspoonfuls.

YELLOW FEVER.

OTHER names: bilious malignant fever ; Mediterranean fever ; yellow jack ; sailor's fever ; black vomit.

This is an acute disease, characterized by paroxysms, and having three stages, the fever, the remission, and the collapse. It is an infectious disease, attended with violent fever, yellowness of the skin, and black vomit. The af-

fection is not contagious, but prevails as other disorders, the infection through which it is propagated being due to a vitiated atmosphere. It is said that one attack of this disease affords an immunity from a second.

Symptoms. — The first stage, which is the fever, may have a premonitory or warning stage in which there is a dull, stupid condition and more or less headache, or it may commence abruptly with a chill, followed in two or three hours by a fever ranging from a hundred and two to a hundred and six F. The pulse may rise to one hundred beats per minute, the eyes becoming glossy, the countenance flushed, tongue coated, and the stomach irritable. There are often severe neuralgic pains over most of the body, especially in the large joints and region of the stomach. In the severest cases there is delirium. As in all fevers, the urine is scanty and high colored. The duration of the first stage is from thirty-six hours to three or four days.

The second stage is that of the remission, in which the temperature falls almost to the normal point, and there is a relief of all the distressing symptoms, convalescence being established; or, in more unfavorable cases, the third stage, that of collapse, or the period of secondary fever, commences within three days, and is marked by all the symptoms of the first stage in an aggravated form; the skin becomes yellow and finally changes to a dark brown, coffee-ground vomit, pulse feeble, surface cold, breathing irregular, death occurring from exhaustion.

Termination. — The mortality is about one in four.

Treatment. — The disease is self-limited. Patients should be made as comfortable as possible in a good bed, the sick-room being provided with an abundance of fresh air; and to guard against the irritable stomach that usually follows,

the bowels should be moved gently with small doses of mercury, and what is the best form and most efficient in allaying gastric and intestinal irritation, calomel, triturated in sugar of milk, one grain of the calomel to nine grains of the sugar of milk. The trituration should be very thorough, or, in plainer terms, they should be ground together for about fifteen minutes in a mortar. Of this trituration give a five-grain powder every hour until five are given. Each powder must be placed in the mouth dry, and washed down by a tablespoonful of water. Calomel thus subdivided by being mixed with the sugar of milk acts as a physic by arousing the secretions of the whole intestinal tract, while its secondary effect is healing, soothing, and quieting. In dealing with a disease that is always attended with an irritable stomach, it is best to anticipate it and use such treatment as is necessary to prevent its occurrence. In all such cases, in addition to the mercurial treatment to prevent vomiting, the use of water should be limited in quantity to a teaspoonful every half hour.

The practice of giving patients small quantities of ice to slowly dissolve in the mouth, and in that way allay the thirst, is "dead wrong," for two reasons: In the first place, after it is once fairly commenced it must be continued through the fever, to avoid the terrible reaction and thirst that would follow if it were left off. In the second place, the ice, by constantly melting in the mouth, soon gets entirely too much water in the stomach, which is liable to excite both vomiting and purging. Should mercury given in this way fail to arrest the vomiting, morphine may be given in one-fourth-grain doses, or, in the severest cases, three-eighths of a grain may be given. In order to

succeed with this, a great deal depends on the way in which it is given. If swallowed during a fit of vomiting, or when there is water in the stomach, it will probably be rejected.

Immediately after a spell of vomiting, the stomach is supposed to be entirely empty, and this is the proper time in which to give the morphine pill. If it is placed on the tongue, well back, and a teaspoonful of water given to wash it down, it will be difficult for the patient to throw it up, and in twenty minutes it will be absorbed by the stomach and the sickness will be over. The great objection to morphine as compared with mercury in these cases is that in ten or fifteen hours, if not sooner, the sickness comes on again and is often attended with nausea and vomiting, solely due to the effects of the drug, and is known to doctors as "morphine sickness," and there is nothing that will allay it. The only remedy is to wait until the effects of the drug die out, which is sometimes forty-eight hours.

PERNICIOUS FEVER.

OTHER names: congestive fever; malignant remittent fever; malignant intermittent fever.

This is an exceedingly malignant malarial fever, and may be either of the remittent or intermittent form. It is attended with great congestion of one or more internal organs, with violent nervous action, followed by nervous debility.

Cause. — An excessive amount of malarial poison.

Symptoms. — The disease may commence in any of its forms, either as a remittent or an intermittent fever. The

first paroxysm usually appears as an ordinary malarial attack.

The gastro-enteric variety of the disease is the one in which the stomach and bowels are greatly affected, and is, consequently, attended with intense nausea, vomiting, and purging, the discharges being thin and mixed with blood. There is a painful desire to go to stool, burning heat in the stomach, great thirst, pulse frequent and weak, feet and hands cold and shrunken, and great vital depression. This condition may continue for several hours, followed by either an intermission or a remission.

The thoracic form may have most of the above symptoms, and, in addition, there is great congestion of the lungs, in which suffocation is threatened, the patient gasping for breath, and breathing fifty times per minute, or more. There is a desperate effort to cough, and the expectoration is often streaked with blood. The pulse is weak and rapid, and surface cold. The chill may last for several hours.

The cerebral or brain form is caused by great congestion of the brain, sometimes by accumulation of water in the cavities, or by rupture of small blood-vessels of the brain. This form is attended by terrible delirium with stupor and coma, the pulse full and slow, the surface flushed. As the hemorrhage of the brain is truly apoplexy, there is a great tendency to fatal coma. Duration of chill, from one to four hours.

The hemorrhagic variety begins as a common remittent or intermittent fever, and is soon succeeded by symptoms of internal congestion. Nausea, vomiting, threatened suffocation, intense pain over liver and kidneys, continue for two or three hours, when the skin suddenly turns yellow

and the urine bloody. The bloody urine has given rise to the name "hemorrhagic form." After the yellow skin and bloody urine appear there is a remission or intermission, to be followed sooner or later by another and severer paroxysm.

The algid form is so named because the word "algid" signifies cold. It is characterized by extreme coldness of the surface, while the internal temperature of the body may reach one hundred and seven F. The attack, which begins with a chill, is soon followed by a fever of uncertain duration, and when it subsides, the temperature of the body falls to ninety, and sometimes even to eighty-five F.; there is a cold sweat, the tongue is white, the breath is icy cold, voice weak, pulse slow and feeble, sometimes imperceptible, and notwithstanding all these symptoms of extreme cold the patient complains of a burning thirst. The mind is clear, but the countenance is ghastly.

Termination.— In all its forms it is unfavorable, unless it is controlled prior to the second paroxysm. Those cases in which a complete intermission occurs are more favorable than where there is only a remission. Under the best treatment and best management it is calculated that from twelve to fifteen cases in a hundred end fatally.

Treatment.— In all the forms of this disease the first and most important thing to be done is to establish a reaction as soon as possible. Stimulants are to be used internally and heat applied to the surface with a view of modifying or shortening the cold stage. In the hot stage, cold water is to be applied freely to the surface by means of a sponge, and using a fan to hasten the evaporation and cause the absorption of the heat.

The terribly distressing symptoms of the hot stage are

best controlled by a full dose of morphine, and of this, most patients will bear three-eighths, if not a half grain at a single dose. As soon as an intermission or remission of the fever occurs, sulphate of quinine should be given, and as the time may be limited in which it is possible to give it, at least twenty grains should be given at a single dose, to be followed in two hours by another dose of equal size. There is a difference of opinion among authors regarding the proper time in which to commence the quinine treatment. Some wait for an intermission or a remission, while others favor giving it as soon as the reaction is established. The latter plan is doubtless the safer course, as it is not known how soon the second chill, which is usually fatal, may occur.

Like all other terrible diseases, a multiplicity of remedies are suggested for congestive fever, and formulas containing a dozen, and sometimes even twenty different drugs, are found in the text-books. The curative value of all such prescriptions depends almost absolutely upon one drug, and that is quinine. Such large combinations are liable to offend the already irritable stomach, and for that reason it is decidedly better to limit every prescription to such remedies as have beyond question the greatest curative action.

When a many-drug prescription is made to stop vomiting, it almost always contains mercury in some form, as that drug is known to cover a wider range of such affections than any other drug. In such cases the curative action of the only valuable remedy in the prescription is often ruined by irritating and useless drugs, and the stomach rejects them all.

Therefore, in the gastro-enteric variety of this disease,

it is better to allay the vomiting with small doses of calomel as follows :—

The first decimal trituration of *mercurius dulcis*, twenty grains. Divide into five powders, and give one every hour until the sickness is relieved. Give each powder dry, and as soon as it is in the mouth, give a tablespoonful of water.

If the mercury fails to allay the vomiting, a one-fourth-grain morphine pill may be given, using the smallest amount of water necessary for swallowing. If vomiting is the only distressing symptom, a quarter-grain pill may be sufficient; but there is usually a great deal of pain and irritation in the bowels, and the dose may have to be repeated in a half hour. Therefore it is better in most cases to give three-eighths of a grain to commence with.

SCARLET FEVER.

OTHER names : scarlatina ; scarlatto.

This is an acute, contagious, infectious disease, essentially belonging to childhood, attended with high temperature, rapid pulse, and a scarlet eruption covering the entire body. There is inflammation of the mouth and throat, and also of the glands of the throat and jaw. It has what is called a desquamation stage following the fever, and during which the entire cuticle separates from the underlying skin. In other words it peels off. One attack affords an immunity from others.

Cause.—A specific poison. At present the information regarding the character of the specific germ is conflicting, but it seems to be a parasite, the nature of which has not been satisfactorily determined.

Scarlet fever ranges in point of severity from cases that

are so mild as to attract but little, if any, attention to those of the severest and most fatal type.

The development is usually sudden, and commences with a marked chill and vomiting. There is pain in the throat followed by a high fever, the pulse being very rapid. Within twenty-four hours the eruption appears, which is a bright scarlet, giving rise to the name of the disease, "scarlet fever." The rash, which appears first on the neck and chest, spreads over the entire body in a short time. At this time there is burning heat of the skin, pain in the throat, and difficulty in swallowing. On examination the throat is found red and inflamed. The headache and restlessness are great, and there is frequently delirium. Diarrhœa is a frequent complication.

Within four or five days the fever declines and with it the eruption fades, when the cuticle begins to separate from the skin. This process may cover a period of two or three weeks. The patients are thin and pale, and recovery very slow.

Termination. — Always more or less unfavorable, as the disease is a grave affection, the mortality ranging from fifteen to twenty-five children in a hundred.

Treatment. — The medical profession knows no remedy that will abort the disease; in other words it is impossible to break it up until it runs its course. The treatment consists, mainly, in treating the symptoms as they occur.

As it is highly contagious, each patient should be separated from other members of the family, with room well ventilated and disinfected. The fever and inflammatory condition of the skin are best controlled by cooling drinks and frequent sponging with water at a temperature of about eighty F. The wet pack is often used as a substitute for

the sponging, and a great deal is claimed for it in keeping down the fever and carrying the patient along to a favorable termination. Water, if not actually a sovereign balm in scarlet fever, is certainly one of the best remedies. During the high fever great benefit may be obtained from the use of aconite, as follows: Tincture aconite, ten drops, water, forty teaspoonfuls. For children from two to six years old, give a teaspoonful every hour. In cases attended with great fever, throbbing of the arteries of the neck, and wild delirium, very small doses of the tincture of belladonna may be given with benefit. A convenient way to give the drug is as follows: Put four drops of the tincture in a glass of water, and give a teaspoonful every hour. Aconite, as above recommended, may be given at the same time, so as to bring one dose of the latter between the doses of the belladonna. As soon as the eruption appears, rub the patient's entire body, except the scalp, with vaseline, night and morning. The most happy effect of the ointment is quieting the irritation of the skin, and in proportion as this is effected, the inflammatory action and the fever are reduced. Later in the disease, usually during the "peeling-off" process, there may be a great deal of itching. If the simple ointment does not allay this itching, it is best to add ten drops of pure carbolic acid to two ounces of the vaseline, and thoroughly mix. In some cases the venice turpentine acts better than the carbolic acid. When it is used, one drachm may be mixed with two ounces of the vaseline. It is hard to tell when a patient is out of danger with scarlet fever, as it is attended with many complications, some of them commencing after the patient seems to be almost well. One of the serious phases of the affection is the inflammatory and enlarged

condition of the glands about the throat. This, conjoined with the accumulations of mucus in the mouth and air passages, greatly embarrasses respiration, causing blood poison, and in that way hastening a fatal ending of the case. The swelling of the glands, as a general thing, is best reduced by the use of hot cloths, changed every two minutes, and applied for about fifteen minutes at a time, and repeated every two hours. The cloths are to be dipped in water as hot as the patient can bear. Instead of this, hot flaxseed poultices, changed every half hour and continued eight or ten hours at a time, may rapidly reduce the swelling. Sometimes these enlarged glands cannot be reduced to any great extent by any treatment, but obstinately continue through the entire acute stage, and suppurate. In other words, they "break," or have to be lanced. These abscesses developing in the advanced stage of the disease, may lead to a fatal termination from exhaustion and blood poisoning. In such cases the following tonic may be of great benefit :—

Fluid extract of cherry-tree bark,

Fluid extract of peruvian bark, of each a half ounce,

Sulphate of iron, thirty grains,

Port wine, fourteen ounces,

Simple syrup, one ounce.

Mix, and give a half tablespoonful three times per day.

The irritation of the bowels attended with diarrhœa, with or without sickness of the stomach, is best controlled by the first decimal trituration of *mercurius dulcis* in five-grain powders, one powder being given every hour until five are given. These powders are always to be put in the mouth in a dry state, and washed down with a little water. This is the best treatment for the irritation of the stomach and

bowels, at whatever time it may occur during the course of the disease.

There is always a tendency to disease of the kidneys in scarlet fever. This is probably due to an extra amount of work they have to perform in order to compensate for the suppressed action of the skin. In this way they may become "tired," as it were, and need stimulating.

For this purpose give the following as directed:—

Sweet spirits of nitre, one ounce,

Acetate of potash, two drachms,

Simple syrup, water, each an ounce and a half.

Mix, and give a teaspoonful every three hours.

MEASLES.

ANOTHER name: rubeola.

This is an acute disease, communicated by contagion. It commences with the symptoms of a very severe "cold." There is usually a cough and a flow of mucus from the nose, considerable fever, loss of appetite, and a miserably bad taste in the mouth, so that food of every kind is disagreeable.

Cause. — A specific poison, or a poison that is sure to produce in all cases the same kind of disease. The attack almost always protects a person from another.

Symptoms. — The disease comes on gradually, and from the time of the first premonitory symptoms until the rash appears on the body, is sometimes four days. Where persons are exposed to cold, or get wet during the warning symptoms of the affection, the eruption is liable to be delayed, which greatly aggravates the distress. During

this prodrome there may be a decided chill, but as a general thing it is only a chilly feeling, followed by fever, the temperature sometimes rising to one hundred and two, or more. There is soreness over most of the body, with headache and all the symptoms of acute catarrh. The eyes are deeply reddened and watery. On the second day the fever subsides to a great extent, but the catarrh continues. Usually on the fourth day a deeply red eruption occurs on the face and chest, soon spreading over the whole body. The fever always returns with the appearance of the eruption, and as the latter affects the mucous membrane as well as the skin, the catarrh is aggravated, the discharge from the nose changing from the watery form to a thick and heavy mucus that may be a cream color. The catarrh also extends to the mucous membrane of the air passages. On the ninth or tenth day, the eruption fades. The cuticle curls up and separates from the true skin, but not to the extent that it does in scarlet fever.

The disease is frequently attended with pneumonia, and when it proves fatal in children, death is mostly due to pneumonia.

Termination. — Generally favorable, but sometimes recovery is slow and attended for weeks with a distressing cough. The disease is one of the exciting causes of consumption, and when this complication occurs it is almost always unfavorable.

Treatment. — The mild cases require no medicine whatever. In the winter season, patients should be protected from draughts of cold air and in that way avoid taking cold. If the fever is very high, give the following every hour:—

Tincture of aconite, ten drops,
Water, four ounces.

Mix. Dose, a teaspoonful to be given every hour until the fever is properly controlled.

Should pneumonia occur, it should be treated in the way laid down for the management of that disease. The itching of the skin that is sometimes very annoying may be controlled by the free application of vaseline, but if the simple ointment fails to stop the itching, five drops of carbolic acid, added to each ounce of vaseline, will stop it almost instantly. After the fever has all subsided, the eruption faded from the skin, and the peeling-off process is under way, there is yet great danger from exposure to cold, and fatal lung complications may arise from getting caught out in a rain.

VACCINATION.

WHEN the teat of a cow is scratched in the proper way so as to bleed slightly, and matter and lymph are taken from a case of smallpox and applied to the cow's teat about as vaccine matter is to a person's arm, the cow takes smallpox. As the animal is much less susceptible to the poison than a human being is, the virulence or severity of the disease is greatly reduced, so that a scab taken from the cow and used in vaccinating children affects them in a greatly modified form, manifesting itself in a group of symptoms familiar to every person who has seen a case of vaccination. The cow vaccine is very properly called the nonhumanized vaccine matter. When a person is vaccinated for the first time with the cowpox matter, fresh from the cow, such person is liable to encounter all the severe symptoms, and enjoy all the protection obtain-

able from any vaccination. As syphilis and other constitutional diseases cannot be communicated to man through a cow, it is evident that the horrible dread of contracting the bad disorder from cowpox is not warranted. It is true that a great many complications arise from the use of the cowpox matter, and sometimes there are extensive sloughings of the arm, attended with unsightly scars. In all such cases the patients are themselves scrofulous, or tainted with some constitutional disease that is simply excited by the vaccination. These cases, even though they rarely occur, have given rise to a foolish and absurd opposition to vaccination.

After a person is once effectively vaccinated, whether in childhood or not, it is a matter of some doubt whether it is ever necessary to repeat it, but in order to be on the safe side it is thought better where persons are vaccinated in childhood to have them vaccinated again after maturity. The author was vaccinated in boyhood, and when he was twenty-four had the varioloid. The fever was considerable, the headache and backache were terrible, the eruption very slight, and the whole trouble subsided in forty-eight hours. The best way to perform the operation in vaccinating is as follows: First, take the scab and put it on the bottom of a plate and add a drop of water to it, then break it up with a table knife so as to get it into a watery paste. Next, take a common lance, dip it quickly in boiling water, wipe it dry, and make four or five light cuts through the skin of the arm, about the sixteenth of an inch apart. These cuts should be deep enough to cause a very little bleeding, then cross them at right angles by an equal number of cuts made in the same way. After this is done, scrape off the blood, and rub the check-

ered surface over thoroughly with the pasty matter, using the lance for this purpose.

In this operation a great deal depends on the extent of the surface to which the matter is applied. If it is large, more matter will naturally be absorbed, a larger surface affected, and a larger and deeper scab, with more fever and greater protection, will be the result. If done as above directed with fresh cowpox matter, the protection in the large majority of cases will be perfect.

Symptoms. — In successful cases of vaccination a papule or pimple appears about the third day. By the sixth day it is matured into a vesicle containing a pasty lymph, and becomes depressed at the centre. On the eighth or ninth day it becomes a fully formed pustule, the surface surrounding it for an inch or more in every direction being deeply red and inflamed. The color begins to fade by the tenth day, the pustule dries, and in four or five days more is a dark brown scab. In from twenty to twenty-five days it drops off. The color of the scar fades from red to the natural color of the skin, finally becoming white, with a number of those indentations characteristic of smallpox.

SMALLPOX.

ANOTHER name: variola.

This is an acute disease, and intensely contagious. It commences with the severest aching pains imaginable, in the lower part of the back. There is no possible position in which the patient can sit, stand, or lie, that affords any relief. The fever that marks the beginning of the attack lasts from three to four days. As this fever and terrible distress in the back begin to subside, the eruption char-

acteristic of the disease gradually makes its appearance, and has three distinct stages. First, papular or pimple-like. Second, vesicular, in which they contain fluid. Third, pustular, in which they are full of white matter. From first to last they are called "pustules." During their development another fever comes on which is called the "secondary fever."

Cause. — A specific poison, the nature of which is unknown, that retains its specific contagious energy for months. The poison is the most contagious known in medicine. An infected sheet of writing-paper would breed a case of smallpox after going round the world. Its period of contagion lasts from the earliest appearance of the fever until it has passed through all of its stages, until the scabs have all fallen from the skin and the latter is entirely sound and free from irritation. The stage of suppuration is the one in which contagion is greatest. One attack usually protects a person from another. Vaccination in the great majority of cases affords absolute protection, the cases being few, where it is properly performed, that will have it at all. The period of incubation is from fourteen to sixteen days.

Symptoms. — It commences with a terrible chill, sickness of the stomach, and intense aching pains in the back, especially in the lower part. The fever rises rapidly; the pulse is full, bounding, and frequent, like the inflammatory pulse. The face is red, eyes red and suffused, severe headache, extreme restlessness, and great debility. Active delirium is a frequent symptom in this stage of the disease. The characteristic eruption appears on the third or fourth day, commencing first on the face.

The eruption consists of plump, red spots about the size

of bird shot, rising about half the diameter of such shot, above the level of the skin; they feel hard under the finger until they pass into their second stage. All the prominent and distressing symptoms either subside or become greatly modified on the appearance of the eruption, and the patient is somewhat comfortable. About the fifth day the spots are papular, or pimple-like. By the sixth day they are vesicular and filled with fluid and soon become depressed in the centre, as is the case with a vaccine pustule. By the eighth day the vesicles are changed to pustules, that is, they are filled with pus instead of watery lymph. By the ninth or tenth day the pustules are fully matured, and the features are terribly swollen and distorted. By the eleventh or twelfth day, pus, more or less mixed with pasty lymph, runs out of the pustule and dries into a firm crust, giving a crustaceous character to all scabs. During the suppurative stage of the disease there is a terrible fever, called the "fever of suppuration." This is the most distressing and critical period of the disease, the delirium being of the wild and violent type. The fever begins to subside in three or four days, if the case is inclined to a favorable termination, and recovery commences.

The confluent form of smallpox is the one in which the pustules are so close together that they run into each other, and the malignancy of the disease is almost always in direct proportion to the amount of surface that is involved in the pustules; therefore the confluent form is exceedingly grave, and should a patient recover he is so horribly disfigured as to make life undesirable.

In the most malignant form of the disease, death results before the characteristic eruption makes its appearance. It seems that this is a much more desirable termination

than recovery from the confluent form with the features terribly distorted.

Termination. — Much depends upon the character of the epidemic, the variety of the attack, and the age of the patient.

The discrete variety, or that form in which the pustules do not run together, is comparatively mild, the deaths numbering about five in a hundred. In the confluent form at least one-half die. It is claimed that in cases of smallpox under five years old and over fifty, one-half die. In the malignant form not one survives.

Treatment. — As the period of incubation of smallpox is from fourteen to sixteen days, that is, it takes from fourteen to sixteen days after exposure until the attack commences, and the period of incubation from vaccination is only a little over half that, if the patient is vaccinated immediately after the exposure, the vaccination will have time to run its full course before the real smallpox sets in, and for this reason an opportunity is afforded for a great deal of protection.

Experience has abundantly proven that smallpox is materially modified by vaccination performed in this way. During an epidemic in the west in which the author treated nearly a hundred cases of smallpox in the various forms, he saw that vaccination performed immediately after exposure, modified the real disease at least fifty per cent. In other words, the cases in which vaccination was performed were not more than half as severe as those not vaccinated at all. If, however, the vaccination is not performed until several days after the exposure, the chances of its affording much if any protection are very small. In the epidemic above referred to, the author was called to visit a lady, five miles out of town, with an eruption somewhat

suspicious. At that time no cases except varioloid had shown up in that part of the country, and those had been mistaken for chicken-pox. On arriving at the house of the lady, a party of about thirty young people were present and arranging for a ball. Sitting close to a wood fire was the patient, with a heavy shawl around her, broken out all over the face, neck, and hands, with smallpox. The dancing party were arranging the large dining-room for an all-night dance. When it was positively announced that the lady had smallpox, the crowd of young folks actually fell over each other trying to get out of the house, and were terribly panic-stricken and demoralized. On examination it was found that about one-half of them had good vaccine marks, and that something like one-third of them had not been vaccinated at all. The whole crowd went to town that night and the next morning, and were vaccinated. Those having a good vaccine mark upon the arm did not take the smallpox at all, while with the others, the disease, though more or less severe, was greatly reduced in severity by vaccination. There was not a solitary case of the confluent form from this exposure. None of the cases were disfigured to any extent by pitting, due, perhaps, to the careful use of a mask to be hereafter described.

During the first stage of the disease, the distress from the fever and intense aching of the back and head, antipyrine may be given in doses ranging from twelve to fifteen grains, repeated every two hours until patient is relieved. For sleeplessness give the following:—

Bromide potassium, one-half ounce,
Fluid extract valerian, one-half ounce,
Water, three ounces.

Mix, and give a teaspoonful at bedtime and repeat it in five

or six hours if necessary. The above is for an adult. For children over two years old, the dose is from one-eighth to one-half of that for adults, according to the size and age of the patient. The most critical period of the disease is during the secondary fever and is caused, largely, by blood poison, and of course is pyæmic in character, that is, it is due to absorption of pus from the hundreds of pustules covering the body. This stage is attended with extreme depression, and liable to fatal exhaustion. It calls loudly for tonics and stimulants, especially iron and brandy. A convenient tonic containing iron may also contain the best alcoholic stimulant, and hence the following : —

Fluid extract Peruvian bark,

Fluid extract wild cherry bark, of each an ounce,

Sulphate of iron, forty-five grains,

Brandy, one pint.

Mix, and give a tablespoonful four times in twenty-four hours.

During high fevers of any kind, patients have a craving for liquid food; and it is fortunate they do, for the dry, solid foods, like meat, could not be properly digested. The appetite in such cases is an important guide in the selection of diet, and patients usually crave chicken broth, milk, soft-boiled eggs, and such other articles as are easily digested.

TO PREVENT PITTING.

THE following is the description of a mask that should be applied to the face of every person with smallpox as soon as the eruption commences. Make it of two thicknesses of heavy, black muslin, and large enough to cover

every part of the face, from the edge of the hair on the forehead to beneath the chin. It must be secured to the face by elastic bands passing round and over the head, so as to make it bear as firmly as possible upon every part of the skin it covers.

It must have four openings: one for each eye, one for the nostrils, and one for the mouth. When ready to apply, it is to be covered with a paste or salve made as follows:

Carbonate of zinc, three ounces,

Oxide of zinc, one ounce,

Olive oil, a sufficient quantity to make a salve soft enough to spread nicely.

After the salve is spread over every part of the mask, it is then to be firmly secured to the face. It must be obvious to every one that the mask cannot touch the sides of the nose nor the parts of the cheek close to the nose. In order to overcome this defect, a considerable amount of cotton batting must be crowded in between the two sheets of muslin on each side of the nose so as to force the paste down upon every part of the skin. The mask should not be removed until all the scabs are ready to drop off. Any scabs that are pulled off before they are ready to drop off themselves, increase the pitting and deformity of the features.

The author has used this form of mask through two great epidemics of smallpox, in which it was probably applied to forty patients, knows what it accomplishes when properly used, and has this to say: If made, applied, and worn as directed, it will almost entirely prevent pitting except in the worst forms of the disease known as confluent smallpox. In this form the scabs are so thick that they touch each other, and every one that has it is to be *pitted*.

A separate mask should be kept on the neck from first to last, and the ears must be kept covered with the paste.

ERYSIPELAS.

THIS disease has a number of other names, some pretty large and rarely used. They are as follows : erysipelatous dermatitis ; the rose ; Saint Anthony's fire.

It is an acute, specific disease, strongly infectious, attended with a fever of low type and scarlet inflammation of the skin, usually affecting the head and face. The inflammation is inclined to spread, sometimes rapidly, the skin becoming swollen and greatly congested. The glands of the neck and jaw are often greatly enlarged, so as to endanger life from suffocation.

Cause.— A specific poison. Instead of one attack affording an immunity from other attacks, one attack actually predisposes to another.

Symptoms.— The disease usually has an abrupt commencement, and, like most fevers, is attended with a chill followed by a fever that is either high or low, according to the severity of the chill, but in the well-marked cases the temperature reaches a hundred and five, pulse rapid, tongue heavily coated. There is often nausea and vomiting, and sometimes diarrhoea. Bleeding from the nose is not an unusual symptom. There are few diseases more prone to delirium than erysipelas, especially when it affects the head and face. During the fever that follows the chill, the eruption appears, usually at the commencement of the fever, but this is not always the case, and until the eruption appears it is impossible to tell what the disease is. A doctor may visit a case in the evening and think he is deal-

ing with a case of bilious fever, and give a diagnosis to that effect. By morning almost any person can name the disease, because it has the characteristic eruption. The author, who had charge of two erysipelatous wards in Camp Douglas Hospital, Chicago, in 1865, treated several hundred cases. In almost all, the inflammation commenced about the head and face, there was great and rapid swelling of the skin, with burning, tingling pain, the swelling in almost all the cases being so great as to close the eyes. During an attack which would last a week or more, the eyes were probably closed, on the average, for forty-eight hours. There was more or less delirium, of a violent character, in most of the cases. It was controlled by the free use of water and bags of ice to the scalp. The ice-bags were applied for ten minutes at a time and then left off for twice that period, and so on until the delirium was subdued. In the milder form the water was used instead of ice-bags, a nurse sitting by the patient and fanning his head and face to hasten the evaporation of the water and reduce the temperature. The swelling of the skin, and also the extension of the inflammation, were combated with the tincture of iodine. Every part of the inflammation was painted two or three times in twenty-four hours by the strong tincture, the painting always reaching a little beyond the diseased skin. Great care was taken to prevent getting the drug in the eyes, and consequently the eyelids were not touched. The drug treatment consisted further of salts and cream of tartar in laxative doses, the aim being to get a good evacuation every day. With a view of overcoming the condition of the blood that was supposed to give rise to the disease, muriated tincture of iron in twenty-drop doses was given every three hours, so as to give a hundred drops or more

during the day. No sedatives, no stimulants, and no tonics, except the iron, were given. Every case recovered.

Termination.—Where the disease occurs in healthy subjects it is usually favorable. It may cause death from suffocation by closing the air passage of the larynx. As in all other grave affections, intemperate patients are most liable to succumb.

Treatment.—In the mild cases of this disease, untreated by glandular enlargement and swelling of the skin, but little treatment of any kind is required. In such cases it is not necessary to paint the inflamed skin with iodine, as that drug is used mainly to stimulate absorption and reduce the swelling. In the mild forms, or those in which the inflamed skin rises but little above the surrounding healthy skin, a solution of sugar of lead applied to the surface with a small sponge will have a very soothing and cooling effect. Under its use the redness usually fades in a short time. The proper strength is a heaping teaspoonful to a pint of water. Great care must be taken to avoid getting it into the eyes. In the more severe cases, in which swelling of the skin and enlargement of the glands about the throat are great, the strong tincture of iodine should be used upon every part of the affected skin, except the eyelids. It is best to apply it about every twelve hours. Should the swelling about the throat be of a character to threaten suffocation, hot poultices, changed every ten or fifteen minutes, should be applied.

The disease can be greatly modified by the use of a sedative to the heart's action if commenced early. If the pulse is decidedly strong and full, tincture of veratrum viride in two-drop doses every hour, for five or six hours,

will do a great deal of good. There is often violent delirium during the first twenty-four hours, and as this is caused by the burning fever and brain congestion, any remedy reducing the force and frequency of the pulse must naturally reduce the fever, the congestion of the brain, and in doing so lessen the delirium.

After the veratrum has been given for five or six hours in this way, it may cause sickness and vomiting. The nausea from veratrum is distressing, countenance pale, bedewed with a cold perspiration, pulse weak and fluttering, the patient having all the symptoms of a fatal collapse. In such cases a tablespoonful of brandy will hasten a reaction, after which the disease runs an exceedingly mild course if it is not wholly aborted. It is not desirable to give the veratrum in such doses as to get the prostrating effects of the drug as above mentioned, but to watch the effect of it upon the pulse; and when it commences to fall, stop the remedy at once. In two or three hours it may be commenced again, and sometimes it may be best to limit the dose to a drop every hour. Should the pulse not be full and bounding, with delirium and other symptoms less violent, it is better to use a milder sedative than the veratrum. Therefore, the tincture of aconite root may be given in drop doses for eight hours, and then left off two or three hours, to be resumed as before. The sooner the sedative treatment is begun after the fever is fairly established, and the nature of the disease recognized, the greater effect it will have in limiting the gravity of the affection. The same is true when veratrum is given instead of aconite. It is truthfully said that there is a time for all things, and there is certainly a time and a proper time, too, in which to give sedatives in inflamma-

tory diseases, and that is as near the commencement of the attack as possible. The object is to arrest inflammatory development, and if the inflammation is allowed unlimited sway for forty-eight hours, a sedative of any kind can do but little, if any, good. In all forms of erysipelas, what is known as the iron treatment is the most efficacious. The muriated tincture of iron is the most popular form in which to give it, the dose being from twenty to thirty drops every three hours during the day-time. It should be largely diluted with water, and if the patient is rational, it is better to have it sucked through a straw or glass tube to avoid its effects upon the teeth. The treatment of erysipelas with this remedy has been so wonderfully favorable as to suggest the idea that its effects are not due wholly to the iron. It is very probable that the muriatic acid used in preparing the tincture has a favorable effect in overcoming the condition of the blood to which erysipelas is mainly due. If the intense fever and delirium are not controlled by the sedative treatment, conjoined with the laxative effects of salts and cream of tartar, water may be applied freely to the head and face; but the head must never be covered by a cloth of any kind. If the hair is kept thoroughly wet and the evaporation of the water hastened by the gentle but constant use of a fan, it will probably do more good in arresting the fever and delirium than bags of ice applied to the head. There are many unpleasant things connected with the use of ice in this way, and one of them is, that the scalp is liable to be frozen, causing the hair to fall off and never return. In order to avoid this deplorable result, it is necessary to remove the bags of ice every five or ten minutes, and keep them off until heat returns to the

scalp. As reaction from the use of ice is very intense, the trouble is liable to be aggravated by leaving it off too long. It is therefore apparent that the use of ice in subduing inflammation affords an opportunity for two serious mistakes. For this reason water, as above advised, is much safer and better. The most violent forms of delirium are sometimes entirely subdued within ten minutes by holding the patient's head over a wash-tub with his face down, and pouring a dozen dippers of cold water all over it, keeping up a slow but constant stream for ten or fifteen minutes.

GERMAN MEASLES.

OTHER names: epidemic roseola; French measles; false measles.

This affection is a self-limited disease, attended with slight fever, congested and watering eyes, sore throat and cough, while the glands about the neck are enlarged. The eruption, which is red and generally exists in patches of irregular size, appears on the first day.

Cause. — It is due to infection, the exposure to the infection before it breaks out covering a period of from one to three weeks. The length of time elapsing after a person is exposed to a disease until the attack commences is called the period of incubation. It literally means the hatching period.

Symptoms. — It is an acute disease, and the attack is abrupt in its development, but the fever is mild, eyes suffused with tears, enlargement of the glands about the neck, attended with an inflamed condition of the throat, and pain on swallowing. The eruption generally appears

early in the disease, but sometimes it is delayed till the fourth day. The spots constituting the eruption are about the size of bird shot, rising a little above the level of the skin. Some of these spots run together, forming thick clusters of irregular size. The eruption appears on the upper part of the body first, and commences fading there about the time it begins to appear on the lower extremities.

Termination. — Always favorable, as the disease runs its course in a week, leaving no after effects of any consequence.

Treatment. — There is scarcely anything to be done in this affection. If there is severe itching of the skin, vaseline ointment, as recommended in scarlet fever and measles, will allay it.

VARICELLA.

COMMON name: chicken-pox.

This is a mild, contagious, eruptive fever, the vesicles drying up and falling off within four or five days.

Cause. — A specific poison, the disease being limited to childhood, because but few persons pass through that period without having it.

Symptoms. — It commences with a moderate fever, followed by the eruption of vesicles that dry up rapidly and fall off within a week, leaving little dints or pits, very much like varioloid.

Termination. — This is always favorable, as the affection is so trifling in its nature as to attract but little attention if it were not for the eruption. In some cases there is serious pitting, and it is very probable that persons disfigured in this way are scrofulous subjects, and that the disease simply arouses an affection that had not previously

manifested itself, just as vaccination does under similar conditions. To avoid the pitting, use zinc ointment to the pimples, and cover the face, neck, and forehead with a black cloth, leaving holes for the eyes, mouth, and nostrils.

APHTHOUS STOMATITIS.

OTHER names: croupous stomatitis; follicular stomatitis; vesicular stomatitis.

This is an inflammation of the mucous lining of the mouth, including the covering of the entire tongue. It is characterized by vesicles appearing in small clusters in different parts of the mouth, these clusters multiplying in number and gradually spreading until they meet each other, thus involving the whole of the mouth and tongue. These vesicles finally rupture, leaving an ulcer corresponding to the size of the vesicle, and slowly heal.

Causes. — It is a disease almost exclusively of childhood. It is due to deranged digestion, delay in teething, neglect to properly wash the child's mouth after nursing, and some of the eruptive fevers, especially measles. One of the most frequent and provoking causes is sour stomach, caused by a failure of the milk to digest.

Symptoms. — It commences with a reddened and inflamed condition of the mucous membrane of the mouth, soon to be followed by the appearance of whitish vesicles on the mucous covering of the lips and point of the tongue. As the disease develops, the vesicles, which exist in little clusters or patches, increase in number until every part of the mouth and tongue is covered with them. The mouth is so sore that the child cannot nurse. As soon as it catches the nipple and tries to nurse, it will let go with an

angry scream from pain. There is a constant flow of saliva from the mouth. In children two or three years old the mouth is so sore they cannot chew, and are compelled to live on liquid food.

Termination. — Always favorable.

Treatment. — As in all other cases the cause of the disease must be found and removed. The affection is usually attended with sour stomach, which can be controlled with bicarbonate of soda, given as follows:—

Soda, a heaping teaspoonful,

Water, a half pint.

Mix; dose a teaspoonful every hour.

Where these vesicles run together so as to form, after rupturing, an ulcer of some size, it is best cured with carbolic acid, full strength, as follows: Clean the floor of the ulcer with a bit of absorbing cotton, then touch it with a drop of the acid so as to make the ulcer as white as milk. Several of them can be treated at one time, and they heal in a day or two. It will not do to treat very many of them at once, as there would be danger of poisoning from the drug; but carbolic acid has no equal in such cases, first, because it is painless, and, second, because it always cures. Nitrate of silver is cruelly painful, and should never be used as a caustic when carbolic acid will answer. If there is derangement of the bowels, small doses of calomel may be given as directed in the treatment of catarrhal stomatitis.

THRUSH.

OTHER names : white mouth ; parasitic stomatitis.

This is an inflammation of the mucous membrane of the mouth, attended with the growth of a fungus or parasitic plant. There is usually derangement of the digestive organs.

Causes. — The disease is largely due to carelessness and uncleanliness, and occurs in debilitated children. It is seldom seen after two years of age.

Symptoms. — Great pain and tenderness, aggravated by chewing or nursing. There is great drooling, the lips are sore and swollen, and the breath has a fetid odor. There is generally diarrhœa attended with griping pains, the stools being green.

Termination. — This is almost always favorable.

Treatment. — Thorough cleanliness of the mouth is of the utmost importance, and the nipple must be thoroughly cleansed after nursing, and the mouth carefully rinsed. In this affection the stools are green, due to indigestion, and there is a great deal of griping pain which adds to the restless condition of the child. In this, as in all other affections of the mouth, in infancy and in childhood, when green stools are found, the following must be given : —

Mercurius dulcis, the first decimal trituration, fifteen grains ; divide into five powders, and give one every hour until all are taken. A powder must always be placed in the mouth, dry, and then washed down with a swallow of water or milk. As the powders work off, the stools change from green to almost black, then gradually fade into brown, finally becoming yellow or natural, when the stomach and bowel derangement is conquered. As the mouth trouble

is largely due to disorders of digestion, the powders given in this way favor a rapid recovery.

The following is a very desirable wash for the mouth :

Common borax, three drachms,

Water, three ounces.

Mix, and apply with a swab.

GANGRENOUS STOMATITIS.

OTHER names : water-cancer ; cancrum oris ; noma.

This is a destructive, gangrenous ulceration of the mouth, in which most of the affected tissues are destroyed.

Cause. — It is usually a disease of childhood, seldom appearing in adults, and is due to a parasite.

Symptoms. — The disease may develop in connection with ulcerative stomatitis, or it may start as a sloughing ulcer upon the gum or mucous membrane of the mouth, when all the other mucous tissue is seemingly in a healthy condition. There is great swelling of the cheek, the skin becoming glossy, the inflammation spreading, usually so as to involve entirely one side of the face.

The pulse is rapid but weak, fever high, debility great, and the case is characterized by a terribly disagreeable odor. Death usually occurs in a week or ten days.

Termination. — This is almost always unfavorable, as it is one of the most malignant diseases that afflict children.

Treatment. — There is practically nothing to be done in these cases, except to make the patients as comfortable as possible until death ends the suffering.

ULCERATIVE STOMATITIS.

ANOTHER name : diphtheritic stomatitis.

This is an inflammation of the mucous membrane of the mouth, diphtheritic in character, attended with extensive ulcerations. It generally begins on the edges of the lower gum, and soon affects the lips and whole interior of the mouth. It is almost wholly a disease of childhood, and is closely connected with poverty, indolence, and uncleanness.

Symptoms. — It commences with an inflamed and swollen condition of the gums, both chewing and swallowing causing great pain, and the patient is compelled to live on liquid food. The mouth is intensely feverish, and hot saliva, often mixed with blood, drips from the mouth ; the glands below the jaw are enlarged and very sore.

Termination. — This is quite favorable so far as life is concerned, but the destruction of the gums is considerable, and sometimes part of the teeth are lost.

Treatment. — The cause of the disease should be found and removed. Absolute cleanliness must be observed from first to last.

Chlorate of potash, given in three-grain doses every two hours, has a positive curative value, its prompt action often winning for it the reputation of a specific. In this affection there is a very low state of vitality with a disposition of the ulcers to spread, and to touch them with carbolic acid, which lowers the vitality of the part for many hours, might do a great deal more harm than good by increasing the disposition to spread ; therefore, a very stimulating application, such as nitrate of silver, ten grains to the ounce of water, may be necessary. Should

irritation of the stomach and bowels exist in this affection, it may be treated in the same way as in catarrhal stomatitis, which please see.

GLOSSITIS.

THIS is an inflammation of the entire structure of the tongue, in which swelling is great, mastication and swallowing painful, and speaking difficult or impossible. It may be either acute or chronic. The acute form is generally caused by an injury, such as hot water, an irritating drug, or the sting of an insect.

In the chronic form the inflammation is generally limited in extent, may be caused by constant irritation from the teeth, and also from the use of a tobacco pipe. Smoking is by far the most frequent cause of chronic inflammation of the tongue, the inflamed and reddened part usually appearing at or near the point. When once, established, it is almost impossible to cure it until the smoking is left off. While the nicotin of the tobacco has much to do in causing the inflammation, it is not the only source of the trouble, as the heat of the smoke, especially when a cigarette is used, is very irritating. To overcome the trouble from heat, it is often found necessary to use a pipe-stem two feet long.

Symptoms. — Acute inflammation of the tongue develops suddenly, is attended with fever, pain, anxiety, and great swelling of that important organ. There is always an unusual flow of saliva, and a burning sensation in the mouth. Chewing and swallowing are difficult. The power of speech is almost lost, and there is threatened suffocation. There is usually enlargement of the glands at the angles of the jaw.

Termination. — This is not always favorable, as there is

more or less danger of death from suffocation. Chronic inflammation of the tongue, after it has existed for many months, is very difficult to cure, and in the majority of cases is not favorably affected by any treatment, except when due to smoking, recovery may occur when the habit is abandoned.

Treatment. — This should commence as soon as possible after the disease is developed and recognized, and the best possible remedy to break the force of the inflammatory action and lessen the dangers that are liable to arise from suffocation, is the tincture of *veratrum veride* in three-drop doses every hour for six or eight hours. It should be given in a tablespoonful of water. By the time five or six doses are taken in this way the pulse may fall rapidly, attended with extreme nausea and vomiting, the countenance very pale and wet with a profusion of cold perspiration. In a case with such marked drug action as the above, the pulse is liable to be feeble and fluttering, and this, conjoined with the other symptoms, suggests the idea of a fatal collapse. When reaction occurs, which may be hastened with a tablespoonful of brandy, the pulse gradually increases in volume, heat and color are restored to the features, the nausea and vomiting stopped, and the patient is better in every way, the inflammatory action being almost subdued. Where this treatment has been followed so as to get such decided drug action as this, the case rarely needs further treatment. The prostrating effects of the drug, however, are frightful to those who have had no experience with it, but the cases of death are a hundred times more numerous from the less violent sedative, *aconite*, than from *veratrum*, as the latter gives warning of its own specific action through vomiting. *Aconite* does not.

CATARRHAL STOMATITIS.

OTHER names: simple stomatitis; catarrh of the mouth.

This is an acute inflammation affecting the mucous membrane of the mouth and tongue and sometimes the throat. It may be limited to a part of the mouth, but in bad cases it involves the whole mucous surface. Infants at the breast are most liable to the affection.

Causes. — It most frequently arises from inflammation of the mouth caused by teething and disorders of the stomach. All the eruptive fevers, such as measles, scarlet fever, and smallpox, have a tendency to produce the affection.

Symptoms. — Stomatitis commences with the usual signs of inflammation, such as heat, pain, and redness, and may affect the entire mouth or only a part of it. The mouth is usually so sore that infants cannot nurse, rendering it necessary to feed them with a spoon. They are intensely fretful and hard to take care of.

Termination. — Patients almost always recover from the acute form of the disease. In chronic cases they are generally adults in whom the disease has been developed by alcohol or tobacco, and no treatment is available in such cases until the tobacco habit or the whiskey is abandoned.

Treatment. — That which is most important in this, as in all other affections, is to remove the exciting cause. If it is due to derangement of the stomach, this may be somewhat easily effected; but if from difficulty and delay in teething, it may require weeks of time to remove the cause, as the teething process cannot be hastened, and any attempt to do so by lancing the gums is injurious. When a tooth is almost ready to come through the gum, so its sharp edges can be felt by the finger, mothers sometimes

bring it through by rubbing the gum with the edge of a thimble or the finger nail. This is all right ; but when the tooth is covered by enough tissue to require the use of a lance, the incision in the gum will close by healing, the scar will be harder than the natural gum, and it will be that much harder for the tooth to get through when the proper time comes.

The following mouth wash will probably give the best results in allaying the irritation :

Borax, two drachms,

Water, three ounces.

Mix, and use as a mouth wash three times per day.

CHRONIC BRONCHITIS.

OTHER names: winter cough ; secondary bronchitis.

This is a chronic inflammation of the membranes lining the large and middle-sized tubes of the lungs. It is attended with cough and copious expectorations.

Causes. — The main causes are exposures to cold, or living in a wet, disagreeable locality or climate. It is also caused by the inhalation of irritants, such as marble dust, and often afflicts stone-cutters. The secondary form is mostly due to inflammatory affections of the lungs.

Symptoms. — The principal symptoms of the disease are cough and expectoration. The cough is more or less periodic, disappearing at times and then reappearing, and thus continuing more or less through life. It is more severe at night, the expectoration being greatest in the morning. As the lungs and stomach are supplied by the same nerves, a sympathetic action between the two organs manifests

itself by a loss of appetite, impaired digestion, and the general symptoms of dyspepsia.

Termination. — Chronic bronchitis when not complicated by other diseases is rarely a fatal affection.

Treatment. — Patients suffering with this affection may find great relief by adopting and carefully following proper hygienic measures. The most important of these, excepting a change of climate, is to wear woollen underclothing, year in and year out, always keeping the feet warm and dry. There is no one factor in the treatment of the disease so important as a change from a low, cold, wet climate to one that is high, dry, and moderately warm. Persons going from the low altitudes of New England, where the air is damp and cold, to live on the dry plains of New Mexico, or to the best of all climates, Southern California, are not only relieved of their sufferings from chronic bronchitis, but in almost all cases get entirely well. Complete recovery often occurs when the changes of climate are much less radical, as when patients go from the eastern coast to central Kansas where the altitude is only about twelve hundred feet above the sea level. So far as a permanent cure is concerned there is nothing but a decided change of climate that affords much, if any, hope, but there is one drug, if properly given and for a sufficient length of time, that favorably affects most cases of chronic bronchitis. It is iodide of potassium and should be given as follows:—

Iodide of potassium, two and a half drachms,
Compound syrup of stillingia, one pint.

Mix; dose a half tablespoonful three times a day.

This mixture may aggravate the symptoms for a few days by causing a flow of mucus from the nose, but the

system soon gets used to the drug, when a gradual improvement follows, the cough becoming much less troublesome. The treatment should be followed for several months. Where it is given in chronic bronchitis attended with asthma, the paroxysms of the latter are usually much less frequent and less severe. The syrup of stillingia in this prescription is not used merely as a convenient vehicle for iodide of potassium, but it has a curative effect, scarcely second to the iodide itself; and those who have always given iodide of potassium in simple syrup or some other form instead of being combined with stillingia, have failed to appreciate one of the most valuable alteratives we have.

INFLUENZA.

OTHER names: La Grippe; "grip;" contagious catarrh. This is an acute, infectious fever, somewhat contagious. There is almost always bronchitis, derangement of the digestive functions, and marked disturbance of the nervous system. There is usually great debility with a tendency to melancholy.

Cause. — The disease is due to bacillus, another term for a disease germ that floats in the atmosphere. It is said that one attack of the disease predisposes to another.

Symptoms. — The disease ranges in severity from the mildest possible form to one of the gravest character. In those cases that are well marked, the disease generally commences with a chill or a chilly feeling, followed by fever. The pulse is quick, shooting pains about the eyes, pains in the muscles and also about the joints, suggesting the idea of rheumatism. There is chilliness along the

spine, pain in the throat, hoarseness, as if from a severe cold, deafness, discharge from the nose, frequent sneezing, as in hay fever, eyes red and watery, and usually a severe cough. The attacks are sometimes attended with distress in the stomach, nausea, vomiting, and diarrhœa. The fever generally begins to subside in from four to seven days, and a slow convalescence is established. Relapses often occur. The most frequent and fatal complications are those of pneumonia. The mild attacks are liable to be mistaken for a "bad cold."

Termination. — Almost always favorable, as the fatal cases are less than one in a hundred.

Treatment. — The medical profession knows no remedy that can be ranked as a specific in this disease. The most rational course to pursue is to meet the symptoms with the best known remedy as they occur. Everything that has a tendency to exhaust the vitality, or depress the nervous system, or unduly excite the respiratory functions, and heart's action, should be carefully avoided.

Patients should be kept comfortably warm, and as a general thing it is safest for them to keep their bed.

For the guidance of every one who may be afflicted with this disease, it is well to state this: The great majority of fatal cases are rendered so by exposure to cold and the hardships of labor or business after the disease has set in. One peculiarity of this affection is, that violent physical exertion during the attack, even though it may be mild, is very apt to develop pneumonia, the most dangerous complication.

The most annoying symptoms of this trouble, such as pains in the muscles and joints, cough, and acute nasal catarrh, are relieved by Dover's powder in ten-grain doses

four or five times in twenty-four hours; in mild cases, two or three powders will be sufficient.

It is a self-limited disease, running its course in from five to twelve days, and there is but little to be done except keeping the patient either in bed or in a warm, comfortable room, and giving such remedies as are best calculated to secure rest and comfort.

If there is sickness of the stomach with a tendency to vomiting, it can be promptly controlled by giving a half grain of the extract of *ignatia* before each meal. The headache complications are also controlled by the same remedy.

AFTER EFFECTS.

ONE of the most terribly unfortunate terminations of this disease is the state of mental aberration, or deranged mind that often follows it. Such patients are liable to be greatly depressed and to live in a chronic state of melancholy with great tendency to suicide. They are also in a somewhat childish condition, with an inclination to weep on the slightest provocation. Whether these symptoms are due to indigestion or not, the best remedy is the extract of *ignatia*, ranging in dose from one-half to a full grain, according to the size of the patient, persons weighing over two hundred pounds requiring a full grain.

One pill is to be given before each meal and should be continued for several weeks; meanwhile the patient should not be left alone, as many have been known to slip off to the barn and hang themselves, or suicide in some other way.

PLEURISY.

OTHER names : stitch in the side ; pleuritis.

This is an inflammation of the pleura, which is a membrane covering the lungs or lining the cavity of the thorax. The membrane covering the lungs is called the pleura pulmonalis. The membrane lining the chest is called pleura costalis. They are both sleek, glossy membranes, and come in contact with each other in breathing. During inflammation of the lungs there may be more or less pleurisy, and in that case it is usually inflammation of the membrane covering the lungs. Where the disease comes on independently of inflammation of the adjacent organs, it is very liable to affect both membranes.

Causes. — It is usually due to exposures to cold or to injuries of the chest. Consumption frequently causes pleurisy, but in such cases it is limited to a small part of the membrane covering the lungs, and is never what is termed general pleurisy.

Symptoms. — The disease in its acute form commences as most inflammatory affections do, with a chill, followed by a sharp pain in the side or near the nipple, which is always increased by breathing or coughing. The breathing is rapid, running from thirty to forty per minute, attended with a dry cough, fever, and frequent pulse. Soon water is poured out on the surface of the inflamed membrane, the fluid accumulating between the two membranes, the one covering the lung and the other lining the walls of the chest. This fluid presses upon the lungs and interferes with breathing, the difficulty being in proportion to the amount of the existing fluid. It often causes a feeling of threatened suffocation, and the patient almost always

lies on the affected side. There are two reasons for doing so. The first is to keep the muscles of that side that are concerned in breathing, in a state of perfect rest so as to prevent pain by the inflamed membranes rubbing against each other. The second is to give the sound lung every opportunity to carry on the functions of respiration, instead of being compressed by the weight of the body and diminished in its breathing capacity.

Cases of pleurisy that are more or less chronic come on slowly, after exposure to cold or other exciting causes. Such cases are affected by shortness of breath, aggravated on slight exertion, have fever and night-sweats, a dry cough, the pulse being small, frequent, and rather weak. There may be but little, if any, pain in the side.

Termination.—Pleurisy that comes on independent of any other affection is generally favorable, running its course and ending in recovery within a few weeks. If it exists as a result of pneumonia or consumption, it ceases to be a simple disease, and the danger to life is largely due to the cause producing it.

When it occurs on both sides at the same time it is called double pleurisy, and is exceedingly unfavorable.

Treatment.—In all cases of acute pleurisy in which the inflammatory symptoms, such as severe pain, full, frequent, and bounding pulse are present, a sedative to the heart's action should be given every hour as follows:—

Tincture veratrum veride, one drachm,
Water, four ounces.

Mix, and give a teaspoonful every hour for eight hours, then leave it off for three hours, after which give it every two hours for twelve hours longer. If at any time while this drug is being given sickness and vomiting should occur,

it must be left off at once, and a tablespoonful of whiskey in an equal amount of sweetened water given. When vomiting occurs from the remedy given in this way, it almost always reduces the force and frequency of the pulse, brings the temperature down greatly, and relieves pain and other distressing symptoms. When this occurs, the pleurisy or inflammatory process, whatever it may be, is completely aborted, and rapid recovery follows. Unfortunately, however, the cases of pleurisy that are sufficiently acute and violent to call for this powerful sedative, are comparatively few.

For this reason, milder forms of treatment have to be employed in most cases. While there is nothing so completely abortive as the *veratrum veride* when it is perfectly adapted to the case, there are other remedies calculated to modify the disease and greatly shorten its course, and one of the very best is salicylate of soda, given as follows:—

Salicylate of soda, two drachms,

Water, four ounces.

Mix, and give a teaspoonful every hour for eight or ten hours, after which give it every two hours. If this is commenced in the early stage of pleurisy, and the patient covered up warmly in bed, profuse perspiration will soon follow, and with it a subsidence of the pain, fever, and other disagreeable symptoms. It is claimed by the best authorities that pleurisy is often broken up by this drug, if timely and properly given, and that it is also valuable in the stage of effusion, or during the collection of water in the cavity of the chest. After water has accumulated in the thoracic cavity it greatly embarrasses the breathing process, and should be gotten rid of as soon as possible; and the following treatment hastens its absorption: Give, about an hour

before breakfast, two heaping tablespoonfuls of Epsom salts dissolved in two or three ounces of water. Continue this for two or three mornings and there will be four or five stools each day, consisting almost entirely of water, and in that way the system is in a great measure drained of the watery portion of the blood, and the fluid in the cavity of the chest naturally passes back into the circulation. But little water should be given to the patient during this treatment.

In the chronic form of pleurisy, absorption of the fluid should be stimulated by iodide potassium in ten-grain doses, three times per day, in a gill of water. In all cases of pleurisy it is best to control the pain with the sulphate of morphine, given in quarter-grain doses every three or four hours, as the case seems to require.

ACUTE TONSILITIS.

THE common name is quinsy.

This is an acute inflammation involving the structure or substance of one or both tonsils, and is attended with fever and pain in the throat which is greatly increased by swallowing. In the majority of cases one or both tonsils suppurate, and either break or have to be lanced.

Symptoms. — The disease commences suddenly with a chill, followed by a fever, the pulse being full and strong, characteristic of inflammation. There is headache, great thirst, with swelling at the angle of the jaw, severe pain which is always increased by swallowing. There is a feeling of suffocation caused by the general swelling about the throat, but more especially from enlarged tonsils. When suppuration of one of the tonsils is taking place, all the

distressing symptoms are increased, and to these are added a new one, that of painful throbbing in the affected tonsil. This gets worse and worse, the pain and throbbing increases, the breathing becomes more and more embarrassed, and the countenance takes on an anxious expression. Finally in a violent effort to cough or get rid of offending mucus in the throat the abscess of the tonsil breaks, the matter is discharged by the mouth, and immediate relief follows.

Termination. — This is almost always favorable, except in children. In the little patients it sometimes proves fatal by obstructing the air passage in the throat.

Treatment. — In all inflammatory affections commencing suddenly with a chill and followed by a high fever and a strong, full, and frequent pulse, tincture of veratrum veride in two-drop doses every hour, should be given to an adult for about six hours. Acute tonsilitis is of this character, and the system should be brought under the influence of the drug as soon as possible without running the risk of over-dosing. Where the veratrum is given every hour in this way the pulse must be watched, and as soon as it commences to fall, the remedy should be left off for a couple of hours. The object of the veratrum is to so control the heart's action as to lessen the amount of blood sent to the affected part, and in doing this to reduce the swelling, the fever, the inflammation, greatly relieve the pain, and prevent abscess of the tonsils. There is nothing so capable of bringing about these favorable results as this drug. Unlike the tincture of aconite, if it is given in too large doses, or continued for too long a time, or in small doses too often repeated, it causes vomiting, in which the drug is thrown up. The sickness in such cases warrants the doctor or nurse to discontinue the remedy for

a few hours. A tablespoonful of whiskey will check the sickness and hasten a reaction. Aconite gives no warning of its dangerous effects upon the system, and for that reason is a dangerous remedy.

During the whole course of this disease the bowels may be kept open by a mixture of Epsom salts and cream of tartar, equal parts, given in heaping teaspoonful doses two or three times per day in a half glass of water. It is well to stimulate the kidneys by a teaspoonful of sweet spirits of nitre in a gill of water every three hours.

WHOOPIING COUGH.

OTHER names: pertussis; hooping cough.

This is a catarrhal affection of the bronchial tubes of the lungs, manifesting itself by convulsive coughs coming on in paroxysms, and characterized by a loud, familiar whoop as the air is drawn into the lungs.

It is a disease of childhood, because a person seldom fails to contract the affection in early life. One attack usually prevents another. It is due to a poison, the character of which is unknown, that acts upon the nervous system.

Symptoms.—It has three stages. The first is the catarrhal stage in which the membranes of the nose, the larynx and bronchial tubes are affected, and this stage is attended with a loose cough, lasting from one to two weeks.

The second stage is the whooping or spasmodic stage, in which the cough comes on in paroxysms, and is exceedingly rapid so as to almost exhaust the child, and when the breath is about given out, the effort of the child to get another full breath is accompanied with a crowing whoop.

There are usually about three spells of coughing in each paroxysm, the last one generally ending with a discharge of mucus and sometimes vomiting. Bleeding of the nose sometimes occurs during this stage.

The third or closing stage: During this stage the paroxysms become less frequent or milder in character and shorter in duration, the expectoration is easier, and the patient much more comfortable. The duration of this stage is from one to two weeks, ending in recovery.

Termination. — This is almost always favorable, except in very young infants or when associated with other diseases.

Treatment. — It is a self-limited disease, and it is doubtful if its course can be shortened by remedies. As a general thing, simple whooping cough does not require any drug treatment. The little patient should be kept in rooms that are comfortably warm and not exposed to draughts of cold air, and the clothing should be warm. When the cough is severe, the spells may be modified in severity and lessened in frequency by the following: Brown mixture, six ounces. Shake, and give from a half to a teaspoonful and a half, according to the age of the child. The dose may be repeated every four hours if necessary. When this is given at bedtime and another dose after midnight, the paroxysms after midnight will be less frequent and less severe.

ASTHMA.

OTHER names: spasmodic asthma; bronchial asthma.

This is a spasmodic contraction of the muscles surrounding the smaller tubes of the lungs, and is paroxysmal in character. It is almost always attended with chronic bronchitis, and in the majority of cases the frequency and severity of the asthmatic attacks are in proportion to the existing bronchitis.

The spasmodic attacks of asthma may last for only a few hours, or they may last for weeks. In some patients they are always short, in others always long.

Causes. — Asthma is undoubtedly a nervous affection, and is due to a condition of the nervous system that affects the breathing functions. It is essentially a hereditary disease, that is, the tendency to the disease is inherited.

Attacks of asthma are frequently brought on by disagreeable odors, such as musty feathers or mattresses. Dust of any kind, but more especially that of irritating drugs, often causes a violent attack.

The most distressing paroxysms often arise from a reflex or sympathetic condition in which the stomach is the seat of the trouble, as when that organ is gorged with a heavy, meat supper, or food that is difficult to digest.

In such cases the attack may be cut short by vomiting.

Symptoms. — When asthma first sets in, the seizure may be sudden, but after the disease has once fixed itself upon an individual, the attacks are preceded by warning symptoms which are usually those of a common cold. Acute indigestion is often one of the premonitory symptoms.

The paroxysms may come on at any time, but like other

nervous disorders frequently break out in the night. The first symptom of the attack is an intense and anxious desire for air. The breathing is attended with loud wheezing, the face is either flushed or takes on a dusky appearance due to a want of breath. The labored breathing sometimes brings on profuse perspiration, and the symptoms for a time are so distressing as to threaten life from suffocation.

Sooner or later the respiration becomes easier, the tubes of the lungs ceasing their spasmodic contraction, and the dusky appearance of the face changes to normal, and the paroxysm is over. Sometimes asthma consists of a series of attacks and remissions, lasting for many days or even weeks, during which the patient is unable to attend to business of any kind.

Termination. — Simple asthma is never fatal.

Treatment. — The first and most important thing to be done is to relieve the distressing paroxysm, and the second to commence such a course of treatment as to prevent, if possible, its recurrence. If the treatment fails in preventing other paroxysms it may reduce them in number and severity. To relieve the paroxysm a full dose of opium in some form is the most effective. A quarter of a grain of morphine, if given to a patient not long accustomed to its use, may give prompt relief, but if the drug has been used a great many times it may take twice that amount or a full half-grain. There are two serious objections to morphine, or opium in any form. The first is, that the dose must be gradually increased until it becomes enormous in order to be effective. This necessarily develops the opium habit. The second objection is, that it suppresses the secretion of all the organs, and causes disorders of digestion. Therefore, it is a poor remedy in a never-ending disease

like asthma. It is much better to rely upon inhaling the smoke from burning stramonium leaves, or nitre-paper, or both.

The disease is one of the most distressing that afflict mankind, and the effects of any drug used to overcome the paroxysm will wear out sooner or later, and for this reason a great deal of time is spent by asthmatic patients in hunting for a new remedy to relieve their sufferings. The disease is usually considered incurable, and this is true, if the patient is compelled to live in a climate and locality where it developed. As a great many cases are attended with chronic bronchitis upon which the severe attacks of asthma mainly depend, a systematic treatment should be adopted with a view of curing this affection. The following is the best :

Iodide potassium, three drachms,

Compound syrup of stillingia, one pint.

Mix; dose a half tablespoonful three times per day.

This remedy soon produces a flow of mucus from the nose with other symptoms of a severe cold. It affects in the same way the mucous membranes of the bronchial tubes of the lungs, and gradually cures or greatly relieves the bronchitis, and just in proportion as it is relieved the asthma is modified. The pleasantest thing that can be said of asthma, obstinate and stubborn as it always is, is this: Proper climatic changes will almost always cure it, or so wonderfully modify it, that the attacks scarcely amount to anything. The author can speak from abundant experience on this subject, and knows that the altitude of Denver, Col., affords in most patients an immunity from asthmatic attacks. There are others, however, who are not greatly benefited by living in Denver. They need a

drier atmosphere than that locality, and may find complete relief in Los Angeles, and other parts of Southern California. Others may fail to get relief in California, and get permanent freedom from it on the high and dry mountain ranges of the West.

It sometimes happens that climatic influences, though almost absolutely curative to commence with, lose their effect in time, but this rarely occurs except after the lapse of many years.

SPITTING OF BLOOD.

OTHER names: hæmoptysis ; pulmonary hemorrhage.

This consists of an expectoration of blood following or accompanying the act of coughing, the blood usually being bright red.

Causes.—It is almost always due to pulmonary consumption in which small arteries have been severed by the destructive process of tubercular softening. It may also be caused by violent muscular action in which small blood-vessels of the bronchial tubes are ruptured.

Symptoms.—It occurs suddenly as a general thing. Sometimes it has no warning symptom whatever, while at others it is preceded by a slight pain in the throat. The quantity of blood may be small or it may be a pint or more. Sometimes it is so great as to end fatally in an hour. As a general thing the attacks are much less severe and subside for several hours at a time, to come on the following night or day.

Termination.—Spitting of blood in itself is not necessarily dangerous, although it weakens the patient and has a discouraging effect upon his mind, as it is usually hailed as an unmistakable sign of consumption.

Treatment. — The patient should be kept in a state of perfect rest in bed, as the least movement of the body aggravates the hemorrhage.

The author has always been able to stop the spitting of blood by giving a teaspoonful of the fluid extract of ergot, repeating the dose in twenty minutes if necessary. The second or third dose always stops the hemorrhage if the first does not.

MUMPS.

ANOTHER name : parotiditis.

This is an inflammatory disease involving the parotid glands at the angles of both jaws, and also other salivary glands, and adjacent parts. The affection is much inclined to move to other parts of the body, affecting the mammary glands or breasts of females and the testicles of males. It is characterized by swelling, pain, and functional disorder of the parts affected, and is infectious, that is, it is "catching."

Cause. — It is due to a specific poison, and one attack almost always affords an immunity from other attacks.

Symptoms. — It comes on quite suddenly, often with a slight chill, followed by considerable fever, frequent pulse, headache, and dry skin. Within twenty-four hours it is difficult for the patient to open his mouth, owing to the swelling and soreness at the angle of the jaw or at the affected side, if only one side is involved. The disease runs its course, as a general thing, within eight or nine days, and where both sides are involved simultaneously it will run its course in about a week.

The affection is liable to be set up in the breasts, ovaries, or testicles, any time during its usual course. If the fever

continues after the glandular swelling subsides, the disease is very liable to migrate to the other parts.

Termination. — Uncomplicated mumps almost always end favorably. But while the affection does not endanger life it is liable to impair, or even destroy, the functions of the ovaries and testicles.

Treatment. — The disease is self-limited, running its course in about a week, and with proper care, recovery ought to be perfect.

The author has treated hundreds of cases, has always kept the boys in bed until the subsidence of the glandular swelling, and kept them in their room for some time afterwards. Children of either sex should not be exposed to draughts of cold air, nor be allowed to sit in cold rooms during the disease. A state of perfect quiet for each and every patient should be maintained, as any exercise, such as romping and playing, increases the heart's action and tends to the development of the disease in the sexual organs. If the glands about the jaw continue to be enlarged after the disease has had proper time to run its course, they should be painted with the tincture of iodine, twice in twenty-four hours. In addition to this give the following : —

Iodide of potassium, two drachms,

Simple syrup, a half pint.

Dose, teaspoonful three times a day. If the child is very young, half of the above dose will be sufficient. If the testicles are inflamed and swollen, hot flaxseed poultices, changed every fifteen minutes, should be used. It is twenty times easier to keep children quiet in bed, and in that way avoid inflammation of the testicles, than it is to control it after it is established.

MEMBRANOUS CROUP.

OTHER names: true croup; croupous laryngitis.

This is an acute inflammation of the mucous membrane of the larynx in which a false membrane is gradually deposited upon the true membranes.

Cause. — It is a disease of childhood and most common in strong and vigorous boys.

Symptoms. — Membranous croup may develop suddenly, being ushered in by an attack of spasmodic croup, or it may come on as an acute inflammation of the larynx, attended with fever, thirst, dry cough, and hoarseness or loss of voice. Difficulty of breathing soon follows in which the child is unable to lie down. As this increases, each inspiration is attended with a shrill or almost whistling sound. As the disease continues to develop, the air passage is narrowed by encroachments of the membrane from all sides, and fatal suffocation is threatened. The skin gradually takes on a bluish appearance caused by a deficiency of air in the lungs, and death seems imminent; but sometimes when all hopes appear desperate the spasm is suddenly relaxed, the air rushes into the chest, the breathing is easier, and the child drops into a short sleep.

But these attacks of suffocation continue to return at short intervals, or there may be portions of the false membrane discharged by coughing, affording longer intervals of quiet repose.

In favorable cases the paroxysms gradually become less severe and less frequent, the bluish cast of the skin fades, the difficulty of breathing is less, the cough gets looser, the voice becomes more natural, and the fever diminishes or ceases altogether.

If the case is destined to end fatally, all the violent and distressing symptoms are aggravated, the paroxysms are more frequent, expectoration ceases, the voice is lost, difficulty of breathing increases, and the blue condition of the skin takes on a deeper hue. The child becomes drowsy and stupid from blood poisoning, a cold, clammy sweat comes on, and the patient dies for want of breath.

Treatment. — The indications are first, to commence treatment as soon as the character of the disease is suspected, with a view of arresting the inflammation and preventing the formation of the false membrane, as it is a great deal easier and safer to stop the development of the croup membrane, than to secure its detachment and expulsion after it is fully formed. As the disease is essentially an inflammation of the natural membrane of the larynx, and the false membrane is simply a product, and often a fatal one too, there is nothing more obvious than this: Any remedy that will stop the inflammation will prevent the false membrane from forming. The author is positive, from years and years of experience, that tartar emetic given in small doses, after vomiting is once established, so as to keep the child under the influence of the drug for eight or ten hours, will so reduce the inflammation as to prevent the false membrane. The extent to which it is proposed to keep the patient under the influence of the drug is this: It is to be given every fifteen minutes until vomiting occurs. After this the sickness of the stomach, followed by vomiting, will occur every half hour for two or three hours, and meanwhile there will be watery discharges from the bowels, probably. As soon as the sickness of the stomach subsides, about half of the first dose of the drug should be given, and in this way sickness of the stomach, attended with more or

less vomiting every hour, should be maintained for eight or ten hours. As soon as the child vomits, it drops back into a refreshing sleep and so continues until the sickness and vomiting come on again. In such cases the hot skin and flushed or bluish countenance are absent, the child is rather pale, and the skin covered with moderate perspiration. There are two ways in which the antimony given in this manner exercises its curative effect. In the first place, as soon as the nausea and vomiting are commenced, the heart is brought under the control of the nauseating sedative, in which its power to pump blood to the affected parts and develop the inflammatory exudation, that is, the false membrane, is reduced one-half or more. In the second place, the relaxation of the system by the constant sickness prevents the spasmodic paroxysm, and as these paroxysms have an intrinsic tendency to increase the congestion of the parts involved in the inflammation, anything that prevents their occurrence exercises a curative effect upon the disease. As it is proposed to break up and abort all cases of membranous croup in which the treatment as herein given is commenced at the beginning of the attack, it is a waste of time to mention other remedies for this disease. The following is the formula for the tartar emetic : —

Tartar emetic, eight grains,
Simple syrup, five ounces.

Mix, and give a teaspoonful every fifteen minutes until vomiting commences. If the symptoms are exceedingly violent and the vomiting does not occur within fifteen minutes, two teaspoonfuls may be given. This remedy will cure every case of croup if commenced early in the attack.

ACUTE CATARRHAL LARYNGITIS.

OTHER names: sore throat; catarrhal laryngitis. This is an acute inflammation of the mucous membrane of the larynx, and is attended with a slight fever, hoarseness, pain on swallowing, and often difficulty in breathing.

Causes. — The most important of these include atmospheric changes, draughts of cold air, and all other conditions causing persons to contract a severe cold. The affection is also due to irritating drug powders or vapors. It is also caused by public speaking and singing.

Symptoms. — It comes on abruptly, the throat feeling raw and dry, with a tickling pain in the windpipe. There is pain on swallowing and also at any attempt to speak. In the early stage of this affection the voice is hoarse and soon ceases altogether. In children the fever develops suddenly, the tongue is coated, pulse rapid and strong, skin hot, the face red, and the child has a croupy cough with threatened suffocation.

Termination. — This is always favorable.

Treatment. — Patients should be kept in rooms uniformly heated and the air kept moist by steam. This can be done in a great many ways. If there is a stove in the room, water can be evaporated in a large flat dish; but if there is not, large hot rocks may be placed in a pan and water poured slowly upon them so as to keep the air almost saturated with vapor.

Cloths wrung out of hot water and wrapped around the neck are capable of doing a great deal of good. It is best to have them very large so as to hold the heat for a long time. The bowels should be thoroughly moved in the commencement by a suitable physic.

In order to procure rest and at the same time get a free action of the skin, the following may be given at bedtime to adults: Dover's powder and nitrate of potash, of each twelve grains. Give this at one dose, and keep the patient warmly covered in the bed or with clothing if not in bed. If there is much fever and the pulse strong and rapid, give tincture veratrum veride in two-drop doses every hour for five hours, and then continue it for eight or ten hours in one-drop doses. The treatment given here is for adults, as the doses are far too large for children. When the disease occurs in children, the bowels may be kept open by teaspoonful doses cream of tartar, three or four times a day in water. In almost all fevers there is a craving for acid, and for this reason the cream of tartar water will be eagerly taken. To control the heart's action and lessen the fever and inflammatory development, the following may be given to children from three to eight years old:—

Tincture veratrum veride, ten drops,

Water, twenty teaspoonfuls.

Mix; teaspoonful every hour for ten hours and then leave it off for two or three hours, after which continue it every hour till it is all given.

To procure rest for little patients from one to eight years old, paregoric may be given in doses ranging from four to twenty drops every four or five hours, but care must be taken to avoid giving too large doses of opium to children, especially to those suffering from throat affections, as profound sleep favors the accumulation of mucus in the air passages and leads to danger from suffocation.

THROAT CONSUMPTION.

OTHER names: tuberculous inflammation of the larynx; laryngeal phthisis.

This is an ulcerative inflammation of the larynx caused by tubercles, practically the same kind of tubercles that exist in pulmonic or lung consumption. The throat consumption is attended with cough, pain on swallowing, more or less loss of voice, great loss of flesh, and fever, in which there are usually red spots on the cheeks.

Causes. — The exciting cause is the action of tuberculous parasites upon the larynx. The predisposing causes are hereditary.

Symptoms. — The affection is almost always a complication of pulmonary consumption. When it occurs as a primary disease lung consumption soon follows. About the first symptom noticed is hoarseness or a feeble state of the voice. The husky voice may gradually increase until only a faint whisper is heard; at the same time there is generally a distressing cough with but little expectoration. The act of swallowing is difficult and painful. In addition to these symptoms those of pulmonary consumption are added, such as loss of appetite, loss of flesh, night-sweats, and extreme restlessness.

Termination. — Always unfavorable.

Treatment. — This disease is essentially consumption, although it may appear, primarily, in the throat instead of the lungs. As it is purely a constitutional disease, the application of local remedies afford no hope so far as a cure is concerned. There is nothing but a change of climate, from a low altitude, low temperature, and moist

atmosphere to a high, dry, and warm climate, that is calculated to afford any hope of recovery.

There is one general principle that should be observed in dealing with consumption either of the larynx or lungs, and that is this: Any locality or climate in which the disease develops, should be abandoned as soon as possible, as a person who passes from a state of perfect health to one of constitutional disease under climatic influence, can scarcely hope to be restored to normal health under the same influences. The climate best suited to consumptives is the warm, dry, semi-tropical region of Southern California, where the high mountain ranges exclude the northern winds and prevent precipitation of moisture in the form of rain. For this reason the so-called rain season only lasts about five or six weeks in the year, during which there are a few light showers. The climate is so mild and uniform that patients can live in tents and exercise in the open air with impunity. A great many patients who have gone to Los Angeles within the last ten years, suffering from lung and throat affection, have entirely recovered. But a great many people are too poor to go, while others have business affairs they cannot readily leave, and in the meanwhile something must be done to stay as far as possible the ravages of the fell destroyer. It has been fashionable for decades to give all consumptive patients cod-liver oil with a view of stopping the wasting of flesh. The cases in which it succeeds, even though when mixed with whiskey, are comparatively few, as consumptives generally have an intolerance for oil of any kind and especially this. The author, many years ago, substituted cream for the cod-liver oil with the most satisfactory results. It is given as follows: Put two tablespoonfuls of good cream into a glass,

and then pour into it one tablespoonful of pure whiskey. Stir it, adding a little sugar if desirable, and give it at once. If the whiskey and cream are given in this way, the latter will not curdle, but if the cream is poured into the whiskey, coagulation immediately follows. The mixture should be given just before meals, and under its use the cough frequently grows less, the throat symptoms improve, and the patient either ceases to lose flesh or gains a few pounds. Sometimes, however, the cream is not well borne, and in such cases it is worse than useless to give it.

PNEUMONIA.

OTHER names: lung fever; winter fever; pleuro-pneumonia; pneumonitis.

This is an acute inflammation involving the substance of the lungs, the congestion being of such character as to render the affected parts of the lung impervious to air. It commences with a severe chill, headache, fever, pain in the chest, cough and difficulty of breathing, expectoration being of a rusty color.

Cause. — It is said to be an infectious disease, caused by parasites.

Symptoms. — A well-marked case of pneumonia commences with a protracted chill followed by a high fever; the pulse is full, strong, and rapid, there is sharp pain in the chest, caused by each act of breathing or coughing, the breathing often being so rapid as to reach forty or fifty respirations per minute. The cough is at first harsh and dry, but gradually becomes moist, with a discharge of frothy mucus that changes by the second day into a rusty colored expectoration, characteristic of the disease. There

are all the symptoms of a violent fever, the face being flushed, sometimes of a bluish red color due to carbonic acid poison in the blood, for want of breath. The above symptoms, more or less severe, continue for eight or nine days, when a crisis sets in attended with profuse perspiration and symptoms of great prostration; the fever almost entirely subsides, and if the case is destined to end favorably, recovery speedily follows.

Unfortunately, a great many cases of pneumonia, after having passed through the various stages in a reasonably favorable manner, seemingly sink rapidly as soon as the crisis is reached and die within a day or two. Such cases are exceedingly common in those who have passed the meridian of life's journey or gone a little beyond it.

Termination. — The highest medical authorities claim that less than twenty per cent of all cases of pneumonia end fatally, but there is something exceedingly deceptive in this claim.

Between the ages of childhood and forty, deaths from pneumonia are exceedingly rare, while above forty the fatality gradually increases, and after the age of fifty is passed, more than half die. A man's intrinsic worth to the world is far greater after he has passed fifty than during the early part of his life, and it is the province of medical art to save him if possible. How can it be done in pneumonia? The expectant plan of treatment, that is, waiting for the disease to run its course, is generally fatal, as the natural crisis is so long delayed that fatal exhaustion soon follows.

Treatment. — Other things being equal, the longer the crisis is delayed the greater is the tendency to a fatal ending by exhaustion.

The extent and violence of the inflammation and its continued interference with the functions of respiration and nutrition cause the exhaustion mainly. The question arises: Is there any way to cut short the destructive and strength-consuming stage of inflammation so as to save enough of the vital forces to carry a bad case of pneumonia to a favorable termination, even when the patient has passed the fiftieth or sixtieth mile-post of life? Let us see. Suppose the natural crisis is destined to end on the seventh, ninth, or eleventh day of the disease. This gives at least a whole week for all the distressing and exhausting stages of the inflammation to run their course. Now if any drug can be given during the first twenty-four or thirty-six hours that will break up the inflammation and bring on an artificial crisis attended with sweating and a subsidence of all the violent symptoms, and yet exercise but little prostrating effect upon the patient, what could be more rational than the use of such a drug? Exactly such a drug is known to the author and has been used by him for thirty years. It is true that it is very depressing, that it reduces the force and frequency of the pulse to the natural standard if not lower, changes the face from red to a peculiar pallor, bedews the skin with cold perspiration, often causes sickness and vomiting, and may alarm nervous and timid attendants; but the whole period, from the earliest development of the artificial crisis until reaction occurs, is less than one-twentieth of the time required to establish the natural crisis. The artificial crisis arrests the disease during the stage of engorgement or congestion, and absolutely prevents the various inflammatory stages that always attend the disease when it is permitted to run its full and natural course.

As it takes the morbid condition twenty times as long to bring on the natural crisis as it does the drug to establish an artificial one, the logical inference is that twenty times more physical force is used up by the disease than by the drug, and a very extensive experience in dealing with pneumonia affecting persons of all ages, confirms the theory.

Based upon an experience of thirty years during which the abortive treatment of pneumonia has been employed in all well-marked cases, the following treatment is given: In all cases of pneumonia attended with a full, strong, and bounding pulse, high temperature, flushed face, and other symptoms indicative of the disease, the following should be given as directed, as soon as the reaction from the chill occurs: —

Tincture veratrum veride, a teaspoonful,

Water, twenty teaspoonfuls.

Mix, shake, and give a teaspoonful every hour until the pulse and fever begin to fall. About this time sickness of the stomach will come on, the face will become pale, the skin will be covered with cold sweat, the pain, hurried respiration, and other violent symptoms will subside, and the whole group of symptoms, excepting the sickness of the stomach, will be practically the same as those of the natural crisis.

The similarity of the drug effect to the natural crisis is further observed in the fact that all the inflammatory symptoms permanently subside after the specific effect of the drug is obtained. In other words, the crisis, whether artificial or natural, practically ends the inflammatory process.

When the artificial crisis is reached within twenty-four

hours, — and it ought to be reached within ten or twelve hours, — the disease is broken up before it has time to exercise much, if any, prostrating effects, and also before it has time to produce permanent organic changes in the lungs. The depressing effects of the remedy are transient, wholly disappearing in a few hours, and the patient is practically well in three days.

When the disease is permitted to run its course, the crisis is liable to be followed by fatal prostration, and this liability is greatly increased if the patient is advanced in years. If, however, enough strength is conserved through it all to prevent a fatal ending, the patient, even if young, is liable to be left with a crippled respiratory apparatus, — a partially consolidated lung that is worthless. Under the system of practice in vogue fifty years ago, certain symptoms were given calling for blood-letting. The principal ones were a strong, full, frequent, and bounding pulse. These were few and easy to remember, and afforded a general guide to doctors in treating inflammatory affections in those days. Exactly the same symptoms call for the use of an arterial sedative, such as *veratrum veride*, in all acute and violent inflammations, especially pneumonia.

The time in which to give this sedative is of the utmost importance. It should be given as soon as possible after the chill subsides, but at this early stage of the disease its character can only be suspected. It cannot be positively known, but if the full, frequent, and bounding pulse is present the sedative should be given on general principles, as an inflammatory seizure of some kind is imminent. Should it not be given until twenty-four hours after the initial chill, the chances of wholly aborting the inflammation, that is of breaking it up during the stage of

congestion, are much less than if given at the commencement; but it should be commenced just the same, and followed for fifteen hours with the hope of terminating the disease in its first stage or greatly modify its subsequent force.

After the disease is developed, and the lung is fully involved in the inflammatory process, the arterial sedative can do nothing but harm. During this and subsequent stages of the disease, what is known as the supporting treatment, such as quinine, iron, alcoholic stimulants, and animal broths, is the best. But this idea cannot be urged too strongly: The golden opportunity is during the first twenty-four hours when the disease ought to be broken up by the sedative.

SPASMODIC LARYNGITIS.

OTHER names: false croup; spasmodic croup; child-crowing.

This is an inflammation of the mucous membrane of the larynx, attended with a spasmodic contraction of that part of the air passage known as the glottis.

Causes.—The principal cause is the sudden contraction of a violent cold.

Symptoms.—The paroxysm comes on chiefly in the night, and may affect a child that a few hours previous seemed to be in a perfect state of health. The little patient is aroused from sleep in an agonizing state of suffocation, has a sharp, dry cough, hot fever, face flushed, and general symptoms of distress. Within an hour or so the breathing becomes easier, the cough moist, and the child falls to sleep. On the following day the cough is loose and easy, the breathing

natural, and the patient seems practically well ; but if the proper treatment is not followed during the day, the paroxysm comes on the second night about the same time, but usually less violent. The child is well during the following day, and on the third night another very slight paroxysm occurs, and this is usually the end of the trouble.

If the first paroxysm does not abate during the day, but is accompanied with inflammatory symptoms for two or three days, there is danger that the true croup may set in.

Termination.— False croup is almost always favorable in its termination.

Treatment.— The best thing to break the paroxysm, which is always nervous in false croup, is to put the child in a tub of warm water. If the paroxysm does not yield to the use of the warm bath in fifteen minutes, an emetic should be given, and at this point arises a question of the greatest importance in dealing with croup, whether true or false. The false croup always terminates favorably. The true croup is always dangerous and should receive prompt and radical treatment from the first. Should the false croup be mistaken for the true, and treated accordingly, such treatment might be unnecessarily severe, but would not injure the child. On the other hand, if the true croup is mistaken for the false, and so treated, the disease will get so fully developed before its true character is determined as to greatly endanger the life of the child. Doctors frequently make mistakes by failing to recognize the form of disease they are dealing with, and of course mothers and fathers are much more liable to commit the same error; therefore it is always safer to treat every case of croup as if it were the worst form of the disease, and in that way arrest the inflammatory development, should it be the true

membranous croup, and save the child. This can probably be done in almost all cases. Therefore get the following mixture put up, keep it in the house, and when croup shows itself in any child, give a teaspoonful every fifteen minutes until vomiting begins :—

Tartar emetic, eight grains,

Simple syrup, five ounces,

Alcohol, one ounce.

Mix ; dose, a teaspoonful every fifteen minutes until vomiting commences. After it once commences the child will be sick more or less for several hours, probably most of the night, and will vomit every hour or so. This is all very desirable, as it acts as a sedative to the heart's action and arrests the croup. There is usually more or less spasmodic croup in connection with the true croup, and this is always relieved by the relaxing effect of emetics.

The folly of trying to distinguish between the mild and grave forms of croup, and thus taking chances of making a fatal mistake, ought to be readily apparent to every father and mother, and the treatment herein given will save every child if the directions are carefully followed. It is not claimed that it will save every patient unless it is commenced soon after the attack. In croup, as in all other inflammatory affections, the golden opportunity in which to arrest the disease is during the first two or three hours after its commencement.

Unfortunately, this time is often wasted in hunting for some particular physician, and by the time he is found, the opportunity to save the child is past.

DIPHTHERIA.

OTHER names: malignant quinsy; putrid sore throat.

This is an acute, specific disease, both epidemic and contagious, commencing in the throat, and characterized by the appearance of small white patches upon the tonsils which run together, forming a white membrane that gradually extends to other parts. The glands of the throat and corners of the jaw are swollen and sore, there is usually a burning fever, the temperature sometimes rising to a hundred and five or more. It is generally understood that the grave character of the disease is in direct proportion to the height of the fever.

Causes. — A specific germ that exists in the atmosphere.

Symptoms. — It may be mild and slow in its development, the chills or chilly feeling being followed by moderate fever, headache, loss of appetite, soreness about the angles of the jaw, and slight tenderness of the throat caused by swallowing.

In other cases the disease may come on suddenly with a severe chill, followed by intense fever, rapid swelling of the glands at the angles of the jaw, great pain on swallowing, aching of the limbs, loss of strength, loss of appetite, and bowels relaxed. On examination the throat is found to be red, the tonsils enlarged and partly covered with the white exudation or membrane that always determines the true nature of the disease, as such a membrane is not found in other affections.

Termination. — As the disease is usually treated it is one of the most dangerous maladies that afflict children. It is an unfortunate thing that the medical profession has never settled upon a definite treatment, but, from time immemo-

rial, has pursued a course purely experimental, always totally unreliable, and always, in grave cases, void of satisfactory results.

Many years ago, the author, who had had a sad experience with diphtheria, set out to find a remedy that would break up the disease at once by killing the parasites secreted in the mucous tissues of the throat, as the throat has always been the focus of infection.

As he regarded the disease mainly as a local affection in its commencement, he naturally thought any remedy that would destroy the infecting germs, would prevent the deplorable and prostrating effects of blood-poison that are so often fatal. His first and only selection of a remedy was carbolic acid, as follows:—

Pure carbolic acid crystals, melted by heat, one ounce,

Pure olive oil, three ounces.

Mix.

There must be no water whatever used in dissolving the acid, for if there is, the mixture will be muddy. It should be almost exactly the color of olive oil.

If this remedy is timely and thoroughly used, it will cure every case of diphtheria, and as much depends upon the thorough way in which the work is done, the following full and explicit directions are given: Take a stick of the proper length and about as large as a common lead pencil. Around this stick, cut a notch close to the end. A half inch from this, cut another. Then wrap a piece of white muslin several times round the stick, allowing it to project three-eighths of an inch beyond the end. Tie it securely by two strong threads, one at each notch. Pour a little of the remedy in the bottom of a teacup, dip the swab into it until it is well soaked, then rub it carefully on the edge of

the cup so it will not be dripping wet. Next take a large tablespoon, holding it right side up, and with the handle press down the tongue. The spoon should be pushed well back, and will almost always make the child "gag." This is the golden opportunity for applying the remedy to every part of the throat, and the work should be done in a very few seconds, turning the mucous membrane of the throat as white as milk. Even if these membranes are only partially affected at the time, the parasites are there and must be destroyed.

The disease never extends to the parts thus treated, and where the cases are taken in hand during the first twenty-four hours and treated in this way, it is rarely necessary to repeat the operation or to give other treatment.

That diphtheria is, practically, a local disease in its commencement, that a local treatment is an absolute necessity, and that the plan of treatment herein given is the correct one, the following is submitted as a proof: In such epidemics as were attended with great mortality under other methods of treatment, there were absolutely no deaths when this drug was used. When called to see cases during the second day of the attack, it was often found difficult to save them, but where other cases occurred in the same family and the carbolic acid treatment was used, the child would be about well on the following day.

From the unfailing success of this quick, easy, and simple treatment, the author has long since ceased to regard diphtheria as a dangerous disease, and it does not seem that one case in a hundred should be lost if the carbolic acid and sweet oil plan is skilfully carried out.

In using the swab, care must be taken not to have it

dripping wet with the drug so it will run down the throat or spread extensively to the parts not touched. It is only necessary to touch the parts affected with the wet swab in order to turn them white, and every parasite secreted in the membranes thus whitened is instantly killed. It is not possible for any one to see the parts that are being touched by the swab, as children always struggle, but after the treatment is over, a glance into the throat will show exactly what has been done, as the membranes touched will be milk-white. In a large number of cases operated on in this way no symptoms of poisoning from the carbolic acid were ever observed, and yet it is best not to use too much of the medicine to commence with, knowing that if the parts are not sufficiently whitened at first, another application can be made in two or three hours. The best caution that can be given to prevent the remedy from running down the throat is this: Get the swab thoroughly wet in the solution, then press it against the sides of the teacup until it ceases to run. If it will not run down the sides of the teacup when thus pressed it will not run down the throat.

The terribly poisonous character of this remedy has no doubt prevented its successful employment in diphtheria. A watery solution would probably be very dangerous, as it would be liable to run down the gullet, but an oil mixture, with anything like reasonable care, is not. When it is a well known fact that the focus of infection, or starting point of the disease, is in the throat, and in ninety-nine per cent of the cases within easy reach of an unfailing local application, the folly of using antitoxine or any other blood-poisoning injection, is readily apparent. As antitoxine has been used quite extensively by hypodermic

injection to cure diphtheria, and in many cases with fatal results, it deserves a passing notice. With reference to that remedy, if it can be called a remedy, there is one puzzling question that confronts us: Will the system of any patient tolerate enough poison, when injected into the blood, to destroy the parasites that caused diphtheria? The attempts that have been made to get a satisfactory answer to this question by injecting antitoxine, have cost many children their lives. The injection of any remedy into the blood is radically wrong, because the parasites are located in the throat and can be easily killed by a drug applied locally, that is a thousand times stronger than the system would bear if injected into the blood, and there is no guessing at results, as every parasite is destroyed, and the disease arrested. If all cases of diphtheria are treated locally as recommended above, and the application is made as soon as the white patches make their appearance in the throat, the use of tonics, such as quinine and iron, with alcoholic stimulants to overcome the prostrating effects of blood-poisoning, will seldom if ever be necessary. The early and thorough employment of this treatment will prevent its extending to the larynx, or windpipe, and causing death from diphtheritic croup.

HEMORRHAGE OF THE BRAIN.

OTHER names: apoplexy; "a stroke."

This disease comes on suddenly from bursting a blood-vessel in the brain, and the escape of blood into the brain substance, causing undue pressure upon that part of the brain at which the hemorrhage occurs, and ultimately more or less destruction of brain tissue. It is characterized by

complete and sudden unconsciousness, irregular and stertorous breathing, with absolute relaxation of the muscles.

Causes. — The disease is almost always confined to those who have passed the meridian of life, the main cause being disease of the blood-vessels. It may also be due to intemperance in the use of alcoholic stimulants and also in eating. Enlargement of the heart, in which the muscular structure is greatly increased in volume and strength, is not an infrequent cause, as the blood is thrown with such force as to greatly endanger the vessels. Fright, intense grief, and mental anxiety are all important factors in causing a stroke of apoplexy.

Symptoms. — Apoplexy usually comes on suddenly, but not always. The vessels ruptured are sometimes so very small that it takes considerable time for enough blood to accumulate to cause the "stroke." The usual premonitory symptoms are headache, dizziness, the patient being more or less blind, with numbness of the limbs, and often a powerless condition of some of the muscles. Vomiting frequently precedes the "stroke," the breathing immediately becoming slow and irregular, with a puffing sound. The cheeks are usually blown outward at each expiration. The pulse is slow and full, and the eyes are insensible to light. The face is flushed, and yet there is no fever until several hours after the attack. The muscular system is thoroughly relaxed.

Sooner or later reaction occurs as a general thing. Sometimes it commences within an hour, at others it is delayed for several hours. A return of the senses brings headache, the mind is wandering and confused, and one side of the body is usually paralyzed.

During reaction inflammatory symptoms may set in,

attended with a high fever, and the paralyzed muscles may become rigid. In such cases there is frequently severe shooting pains.

Termination. — The great gravity in apoplexy consists in the fact that one attack predisposes to another, and if the first is not fatal a subsequent one is almost sure to be.

Treatment. — If a stroke is preceded by premonitory symptoms, it shows that slow hemorrhage is probably taking place in the brain, and the best thing to be done in order to relieve the pressure upon the arteries and stop the hemorrhage is blood-letting. This should be done in the old-fashioned way, by opening a vein in the arm and drawing off a pint or more of blood.

During the attack the tendency to hemorrhage of the brain may be lessened by elevating the head, and this should be done immediately. The patient should be on his side with the face inclined a little downward to prevent the choking effect of the mucus and saliva, that might otherwise accumulate in the throat. If when reaction is established the pulse should be full and bounding, a sedative to the heart's action should be given, and the best is the tincture *veratrum veride* as follows: —

Tincture *veratrum veride*, one drachm,
Water, three ounces.

Mix, and give a teaspoonful every hour until the strong and bounding character of the pulse is lessened or until sickness of the stomach occurs.

If an attack is marked by pallor of the countenance and feeble and irregular pulse, a tablespoonful of whiskey in an equal amount of sweetened water may be given every hour until the condition commences to improve. After all the acute symptoms of an apoplectic seizure have subsided,

iodide potassium may be given in ten-grain doses three times a day to cause absorption of the blood clot in the brain.

The following is a convenient form for giving it:—

Iodide potassium, three drachms,

Simple syrup, nine ounces.

Mix, and give a tablespoonful three times a day.

After a month or two the paralyzed condition may be favorably affected by giving the solid extract of ignatia three times a day before meals, the dose ranging from one-half to a full grain according to the size of the patient, a full grain being intended only for the largest and strongest men.

SICK HEADACHE.

OTHER names; bilious headache; blind headache; migraine; hemicrania.

This is a paroxysmal pain or aching in the head, usually periodical, attended with sickness and vomiting and a morbid sensibility of the nervous system. The affection is aggravated by sound, disturbed by strong light and obnoxious odors. The smell of tobacco smoke greatly intensifies the sickness and headache.

The causes are largely hereditary, that is, patients inherit an irritable, nervous disposition that favors the development of atonic dyspepsia, and the dyspepsia in a large majority of cases causes the sick headache. There are a great many cases of the disease, however, that are not traceable to any known cause, and yet permanently yield to such a course of treatment as cures dyspepsia, even though the latter does not seem to exist. There is nothing in the way of diet or habits of living that is so great

a factor in causing sick headache as the use of tea and coffee, but more especially the latter. In a large per cent of the obstinate cases of sick headache the patients are excessive coffee drinkers, some of them taking one or two strong cups three times per day. Others drink two cups at each meal, and the number of persons who can drink coffee thus intemperately and not be afflicted with frequent and severe paroxysms of headache, are certainly very few.

Symptoms. — The attacks of this disease come on in irregular paroxysms, each attack seemingly ending in perfect recovery. The paroxysms usually have warning symptoms which are mainly disorders of digestion.

The headache may commence with a feeling of chilliness followed by nausea and vomiting, or the chilly feeling may be entirely absent. There is often soreness of the muscles somewhat like muscular rheumatism, and the patient is disturbed by strong light, by unusual sounds, or anything calculated to disturb in the least the nervous system. About this time pain of a severe character sets in. It may be darting like neuralgia or it may be an intense aching pain over the eyes, in one or both temples, or in the back of the head. The pain is usually felt on the left side and very rarely felt on both sides at once.

The sickness of the stomach, instead of preceding the pain, as it sometimes does, more frequently commences with it and accompanies it, the greatest nausea and vomiting being apparent during the greatest intensity of the headache.

Motion, light, sound, disagreeable odors, and everything that perturbs the nervous system, aggravates the suffering. These attacks, if not cut short by drug treatment, may last for two or three days.

Termination. — The disease is not only free from danger to life, but almost all cases, under the right treatment, can be permanently cured.

Treatment. — The first thing to be done is to break up the paroxysm, which can be done with either one of two remedies. Sulphate of morphine given in pill form, sugar coated, in one-fourth-grain doses every half-hour until the patient is entirely relieved, is, perhaps, the best, unless that intense sickness of the stomach, characteristic of morphine, should make its use undesirable. If it is given, however, as directed, the third pill will rarely if ever have to be given. The other remedy is antipyrine, and in severe cases may be given in twenty-grain doses. The first dose will afford within one hour partial relief, but it is usually necessary to give the second dose within an hour and a half from the first. This almost always breaks up the paroxysm.

THE CURATIVE TREATMENT.

THERE is a permanent and almost infallible cure for this terrible affliction, if the proper remedy is taken for a sufficient length of time, and the advices regarding eating and drinking carefully followed. In the first place coffee, if used at all, must be abandoned. It is better to avoid the use of stimulants of every kind; but if something in that line must be taken, a cup of tea at breakfast may be used instead of coffee. Granting that this wonderfully pleasant beverage, coffee, is to be permanently abandoned, the next thing is to select a remedy that will so act upon the nervous system, and so change it, as to break up the headache habit. The remedy is well known to the author, and has been

successfully employed by him in these cases for thirty years.

It is the solid extract of *ignatia amara*, given in doses ranging from one-half to a full grain three times per day before meals. If a person weighs from a hundred to a hundred and sixty pounds, a one-half-grain pill is sufficient; if from one hundred and sixty to two hundred, a three-quarter of a grain pill must be given. All persons weighing over two hundred should take a one-grain pill. All adults, even though they may weigh less than a hundred pounds, will bear a half-grain pill. Children from eight to fifteen years old may take a quarter-grain pill, and in those below eight sick headache rarely if ever occurs.

It seems that the merits of this remedy are almost wholly unknown to the medical profession, as the impression generally prevails that *ignatia* is about the same as *nux vomica*, or its more active principle, strychnine. The facts are, that *ignatia*, though chemically very similar to *nux vomica*, has medical properties wonderfully superior, and also vastly superior to strychnine, and covers a wider range of nervous and dyspeptic disorders than any other remedy known in medicine.

When it is given to cure sick headache or any other affection that has existed for many years, it must be remembered that the primary cause of the disease has to be removed, and the habit of its occurrence broken up. For this reason, when sick headache has existed for fifteen or twenty years it is foolish to suppose that any treatment will cure it in a month or two. Therefore the remedy should be given three times a day without a miss for six months or more, where it has existed for many years. If it is much more recent in its origin, that is, if it has

only existed for two or three years, three months will probably be long enough to continue the drug.

CONGESTION OF THE BRAIN.

OTHER names: cerebral congestion; cerebral hyperæmia.

This is an unnatural fulness of the vessels of the brain. When the congestion involves the arteries, it is called active congestion. When the veins are mainly involved, it is called passive congestion. The affection is attended with headache, dizziness, and sometimes convulsions.

Causes. — In the active form it may result from enlargement of the heart, causing a flow of too much blood to the brain, and unduly distending the vessels.

Excesses in eating lead to a fulness of all the blood-vessels by creating too much blood, and in this way are liable to cause brain congestion. Alcoholic stimulants, sunstroke, great anxiety, or severe mental labor, all have a tendency to cause cerebral congestion.

Symptoms. — Congestion of the brain may come on suddenly or may develop gradually, and the symptoms are liable to be aggravated by the horizontal or recumbent position. It is characterized by headache, neuralgic pains, and derangement in the senses of vision and hearing, ringing in the ears, dizziness, contracted pupils, a "rattled" or stupid condition of the intellect, and weird hallucinations; the face is congested, eyes suffused with tears, or there is more or less twitching of the muscles.

Termination. — This is more or less unfavorable so far as perfect recovery is concerned, but the cases that end fatally are comparatively few.

Treatment. — In the active form of the disease the appli-

cation of cold water to the head in immense quantities, so as to completely overwhelm the morbid action, is the best treatment that can be adopted, but in the meantime the head should be sufficiently elevated to allow the force of gravity to assist in carrying the blood away from the brain. In using water a great deal depends on the amount and the temperature, and a wash-tub full is not too much as a general thing. A physic of Epsom salts, to the amount of two tablespoonfuls, may be given in half a glass of water if the patient can swallow.

In all cases where the symptoms are violent and attended with a strong, full, and frequent pulse, the following should be given as directed : —

Tincture veratrum veride, one drachm,

Water, two and a half ounces.

Mix ; dose, a teaspoonful every hour. Within eight or ten hours the fever and pulse will probably be greatly reduced, preceded by sickness of the stomach and vomiting. These changes are the characteristic effects of the drug, and when the distressing symptoms subside in this way recovery is usually rapid ; but should the nausea and depression from the drug be great, a tablespoonful of whiskey in an equal amount of water may be given to hasten reaction.

DYSPEPTIC MELANCHOLY.

THIS is one of the forms in which dyspepsia manifests itself. In such cases the patient is called a hypochondriac, or a subject of hypochondria. He is very much depressed in spirits, and imagines he has an incurable malady of some kind. The tendency of such patients is to brood over their physical infirmities, and allow themselves

to be haunted with ideas of cancer of the stomach or some terrible affection from which there is no escape. It is hard to convince them that dyspepsia, originating in nervous debility, is the cause of all their misery and painful abstractions. Many cases of insanity are traceable to stomach derangements, and in all such affections attended with profound melancholy, there is a tendency to suicide. Melancholy itself is a mental derangement, and when it reaches a condition in which it is incurable, it is called insanity.

Termination. — Under prompt and proper treatment this is almost always favorable. It consists in giving from a half to a full grain of the solid extract of *ignatia* before each meal. If a person weighs from 100 to 160 pounds, he should take a half-grain pill; if from 160 to 200, three-quarters of a grain will be the proper dose. All persons weighing over 200 pounds, should take a full grain. In all cases the drug should be continued for three or four months. In cases of very long standing it may be best to keep up the treatment for six months.

Under the use of the remedy there is rapid improvement, which usually sets in during the first week. It is unnecessary to prescribe anything else, as the *ignatia* is worth more in such cases than all other drugs in the *materia medica*.

ANGINA PECTORIS.

THIS is a disease in which there are sharp pains in the region of the heart, usually reaching the left shoulder and arm.

Causes. — It is often due to a hereditary tendency. It may also be associated with fatty degeneration of the

heart and disease of the valves, but its true place is among nervous disorders.

It has for its exciting causes in many cases, the excessive use of tobacco and alcoholic stimulants.

Symptoms. — The attacks occur in paroxysms, are irregular in character, commence with but little, if any, warning, and when the patient is seemingly in a state of perfect health.

A person attacked with it screams out suddenly as one in a fit of epilepsy; the pain is terrible, with a feeling of cramp in the chest, especially in the region of the heart.

Termination. — It is considered a very grave disease, and in bad cases any paroxysm is liable to prove fatal.

Treatment. — Neuralgia of the heart has heretofore been thought incurable, but in the last few years a remedy has been found that has proven a specific in some of its forms. This remedy is the *cactus grandiflorus*, or night-blooming cereus. It is given as follows: —

Tincture *cactus grandiflorus*, twenty drops,

Water, twenty teaspoonfuls.

Mix, and give a teaspoonful every ten minutes until the patient is relieved.

In using this remedy it is best to buy the green tincture. When in the course of an inflammatory rheumatic attack, there is the sudden setting in of a constriction in the region of the heart, as if the heart were grasped with a band of iron, this remedy is of the greatest importance, and almost always acts like a charm.

As a preventive of the paroxysms, one drop in a teaspoonful of water three times a day may be taken for a week, and then suspended if no symptoms are noted. The sulphate of morphine in pills from one-fourth to a

half grain, according to the severity of the symptoms, should be resorted to in case the treatment directed does not relieve promptly.

SNAKE-BITE.

It is scarcely necessary to burden the reader with the symptoms arising from the bite of a rattlesnake or copperhead, as the man that is bitten by such snakes will know it; and if he lives very long, will become thoroughly familiar with the symptoms until he passes into a state of unconsciousness.

Fortunately, a rattlesnake is never looking for an opportunity to bite any one, and if unmolested, never "strikes." Before striking, he gathers himself into a coil and is then prepared to jump about one-third of his entire length. When ready to make the jump and inflict the wound that is often fatal to the one he bites, he shakes his tail, and the sound of his "rattles" gives warning of the deadly stroke he is liable to make; and even then, if not further encroached upon, he may not bite. He is utterly helpless when stretched to his full length, and for this reason, it is hard to get him to strike at a dog. He seems to know that the dog will get hold of him before he can get back into his coil so as to defy the canine. The dog understands the snake just as well as the snake does the dog, and will never try to get hold of him as long as he keeps in his coil, but will bark, jump toward him in a threatening way, and do everything to tempt the snake to strike at him. Finally the snake gets desperate, jumps at the dog, but the latter always dodges him, and before the poor snake can get himself back in a coil ready to strike again,

the dog catches him in the middle and shakes the life out of him. Dogs rarely if ever get bitten by a snake.

The effects of a snake-bite upon a man, depend upon the location of the bite with reference to blood-vessels. If one of the fangs enter a vein, the poison passes at once into the circulation, and death ensues before there is any time for remedies. If the part bitten is not covered by clothing, a great deal more poison enters the body than would if the flesh were covered by a thin stocking, and the treatment should be very prompt and thorough.

Treatment. — The best thing to be done after a person is bitten is to touch the wound as soon as possible with the strongest solution of carbolic acid, as that kills every particle of the poison that is not already taken into the circulation. Nitrate of silver, sulphuric acid, or nitric acid may be used if the carbolic acid is not to be had, or the part bitten may be touched with a hot iron.

A great many remedies are popular among people living in countries infested with rattlesnakes and copperheads, and among them may be mentioned the habit of binding a large piece of warm and bleeding chicken upon the wound. Another favorite treatment is to put the foot, if that is the part bitten, into a bucket full of blue mud obtained from the bottom of a foul and sluggish stream. They usually keep the foot in such mud for hours. It is scarcely possible for any such treatment to be of benefit. The best remedy known to antidote the poison of such snakes, is whiskey or some form of alcohol. The tendency of persons bitten is to pass into a state of fatal stupor, and whiskey is given with a view of counteracting it.

It is foolish to give it in tablespoonful doses, as such quantities can have but little effect upon the poison or the

patient. The writer remembers one particular case that occurred in his practice that will afford some reliable information to the reader. He was called to see a boy sixteen years old that had been bitten by a rattlesnake a half hour before his arrival. The foot was considerably swollen and the patient was in a condition somewhat alarming, as the symptoms were similar to those of poison from morphine. He was given a half pint of whiskey immediately. This soon began to act favorably in overcoming the stupor, and was followed in an hour by smaller doses amounting to a pint in all, and the boy was practically well by the following morning.

COMMON HEADACHE.

THIS is one of the most common ailments of humanity, as nine out of ten of the adult population of the civilized world have it more or less.

The predisposing cause is heredity, as the inclination to headaches runs in families. The exciting causes are dyspepsia, the immoderate use of tea, coffee, and alcoholic stimulants. Among the exciting causes, coffee, though one of the most pleasant drinks known to mortals, holds a front rank.

There are but few persons who drink coffee to any extent that are not subject to headache. Some of the attacks are moderate, consisting of a dull headache lasting for a day or two, while others are so severe that the patient is compelled to go to bed. There are other cases in which the headache lasts for a week at a time but is not severe. There are others in which the paroxysms occur once per month, or at wider intervals. When not accompanied with sickness of the stomach, they are not called "sick head-

ache," but are known as "common headache," but are all cured by the treatment given in the chapter devoted to "sick headache."

It is unnecessary to repeat the treatment here, as the reader can easily turn to "sick headache" and find the treatment for "common headache."

PALPITATION OF THE HEART.

OTHER names : irritable heart ; fluttering of the heart.

This is a functional disease of the heart in which its beats are so fast that the pulse at the wrist can scarcely be counted.

Causes. — A great many causes of this affection are enumerated by authors, but the principal one is undoubtedly dyspepsia, as palpitation of the heart always accompanies that disease, more or less.

Symptoms. — As nine-tenths of all the cases of palpitation of the heart, and probably a great deal larger per cent than this, are due to dyspepsia, the symptoms of the affection arising from that cause are given, and are about as follows : After eating a very hearty meal or partaking of indigestible food, a feeling of distress in the stomach occurs, with more or less difficulty of breathing and general feeling of discomfort. About this time a rapid fluttering of the heart may set in, the heart beating violently against the walls of the chest, its pulsations being apparent through the patient's clothing ; there is frequently shortness of breath, dizziness, and an expression of general anxiety. These symptoms are not all present in any one case, as the disorder is greatly modified in its symptoms by the temperament of the patient. Some are unable to lie down, owing

to a feeling of suffocation that follows. Others become feeble and tottering soon after the seizure, and are compelled to lie down.

Termination. — So far as life is concerned this is almost always favorable, as palpitation of the heart is a functional disease as a general thing; but there are few patients in whom habitual palpitation is once fully established, that ever entirely recover from it.

Treatment. — In this as in all other diseases the most important thing to be done is to remove, if possible, the cause. Next to this in importance is to find a remedy that will break up at once the paroxysms when they occur. As most cases are associated with chronic indigestion and depending upon it, the treatment must be directed to the stomach and bowels through the action of drugs upon the nervous system. As this is essentially a treatment of atonic dyspepsia, the reader is referred to the chapter on that disease and assured that when the stomach and intestinal indigestion are overcome, the paroxysms of palpitation will occur much less frequently, if at all. It is well to remember, however, that in all disorders of a nervous character, certain organs acquire certain habits, and when these habits have long continued, they are hard to break up. For example, epileptic convulsions may commence early in life from a certain or specific cause. After a great many "fits" have occurred they will probably continue, even though the cause that originally produced them has long since ceased to exist.

The frequent recurrence of palpitation seizures ceases to be distressing to a patient, provided he has learned some easy and simple remedy to break up the attack. Such a remedy was discovered by the author over thirty years

ago, has been used by him ever since, and rarely fails to stop the palpitation in a few minutes. The manner in which it was discovered is as follows: Hiccough, which is a spasmodic affection, is almost always controlled by a patient taking a full inspiration and holding his breath as long as possible. As the author considered palpitation of the heart a nervous disorder, he tried the same treatment with all patients as that used for hiccough. If the palpitation is of the character that permits patients to lie down, they should stretch themselves upon a lounge or bed immediately, and after a few minutes quiet repose, be directed to fill the lungs as full as possible with air and hold it for a half minute or more. The palpitation usually ceases within a few seconds after the lungs are completely distended, and when it once stops it seldom if ever commences again that day or night. So far as that paroxysm is concerned, it is completely broken up. This is a remedy that never wears out, as the effects of drugs do sooner or later, but is valuable and usually unfailing during the life of the patient. Should the first effort at holding the breath fail to stop the palpitation, another effort of exactly the same kind should be made after the lapse of five or ten minutes. There is one important point always to be observed and that is this: In obstinate cases the shoulders should be thrown back and every cubic inch of air sucked into the lungs that they will hold. Where a failure occurs in the first effort it is almost always owing to a trifling effort at inflating the lungs, and next time a stronger, deeper, and fuller breath must be taken.

INFANTILE COLIC.

THIS is one of the most frequent and annoying troubles of the human race. Many babes, although growing rapidly and seemingly healthy, have green stools more or less, showing imperfect digestion. In all cases attended with green stools there is colic, and this may be so distressing as to keep the infant crying most of the night. The parents give it hot teas, peppermint, and various remedies to stop the pain, and, unfortunately, sometimes give it paregoric or something of that kind which further interferes with the functions of digestion, binds the bowels, and increases the liability to colic.

Treatment. — This consists in the first place in giving a remedy to act on the whole intestinal tract so as to get rid of curdled and irritating food, including the green stools. Therefore give the following:—

Mercurius, the first decimal trituration, ten grains. Divide into five powders and give one every hour, by mixing it with a little white sugar and putting it in the mouth in a dry condition, and washing it down with a teaspoonful of milk or water. By the time all the powders are given, the stools will be dark and will gradually change to brown. After this, give the babe one-twentieth of a grain of the solid extract of ignatia three times per day, allowing about six hours between each dose. The extract should be given in pill form and continued for two weeks. This treatment prevents further trouble from colic, as a general thing.

BLEEDING FROM A CUT.

WHEN an artery is cut that lies close to a bone, it is unnecessary to tie it, as the bleeding can be stopped in a minute by pressure, so as to compress the artery against the bone. If on the foot, a half dozen folds of muslin, making a little firm compress an inch square or a little more, should be placed over the cut, and of course it must be large enough to cover it. Then a bandage is passed round the foot, commencing at the toes. It should extend to the ankle and bear firmly upon the compress covering the bleeding vessel. The bleeding can be stopped instantly in this way if the bandage and compress are properly applied.

If the wounded blood-vessel is not close to a bone, cotton batting should be dipped in a solution of subsulphate of iron until it is soaking wet, and then forced into the wound and firmly held there with the fingers, until the bleeding is stopped or until a doctor arrives to take charge of the case.

BLEEDING FROM THE EXTRACTION OF A TOOTH.

MANY cases of fatal hemorrhage have been reported within the last quarter of a century from the extraction of teeth. Many other persons have experienced great annoyance from bleeding that could not be arrested for twenty-four hours or more after parting with a distressing toothache through the application of "cold steel." Either of the following methods will stop such bleeding in a few minutes, if properly used: If convenient, examine the

tooth that has been extracted so as to see the size of the opening in the jaw. Then select a vial cork large enough to fit into this opening, and if necessary cut off the top of it, so when it is forced into the jaw it will not project above the gum quite as much as the teeth do. Next soak it in a solution of subsulphate of iron, and crowd it down firmly into the cavity left by removing the tooth. The hemorrhage will be arrested in a few minutes, if not instantly, and the cork may be allowed to remain for several hours. The other method is equally successful and is as follows : Take an ordinary hypodermic syringe with a point almost at right angles. Draw into the syringe three drops of solution of subsulphate of iron, then screw the point on. Wipe the bleeding gum perfectly dry with a small sponge, and as soon as a fresh drop of blood springs up, push the hypodermic needle into the exact spot from which the blood started and inject two or three drops of the solution. It will curdle the blood instantly and stop the bleeding.

The cork, if properly applied, will stop the bleeding in almost every case, even if not dipped in the iron solution at all. If no cork of suitable size can be found, a larger one may be dressed down with a sharp knife. A plug of soft wood, if whittled down to the right size to fit the opening in the jaw, will answer.

BLEEDING OF THE NOSE.

ANOTHER name : epistaxis.

There are many persons in whom there is a peculiar tendency to hemorrhage, and in all such patients slight wounds upon the body, the extraction of a tooth, or a

“bump” on the nose may cause an alarming flow of blood.

Bleeding of the nose may be due to congestion of the brain, a condition in which there is usually a fulness of the blood-vessels about the head; it may arise from enlargement of the heart, causing blood to be thrown with such force as to rupture the small arteries of the nose and its membranes, or it may result from disease of the blood-vessels.

Termination. — Although many cases of bleeding from the nose have ended fatally, all such hemorrhages, if the proper treatment is employed, can be easily and promptly arrested.

Treatment. — When due to congestion or inflammation of the brain, cold water should be applied to the head very freely for fifteen or twenty minutes. If this does not succeed in stopping the bleeding within a half hour, the following plan must be substituted for the cold water: In the first place, turn two ounces of solution of subsulphate of iron into a teacup. Then get a half-dozen slender chicken feathers about three inches long, from the inner side of a chicken's wing. They are not to be the quill-feathers of the wing, but the small straight ones that cover the roots of the main wing-feathers. The straightest and best ones should be selected whether found on the inside or outside of the wing.

They should be tolerably stiff and firm. Dip one of them into the solution in the teacup so as to get all of its feathers soaking wet. Then quickly pass it into the nostril that is bleeding, and let an inch of the quill end stick out. Dip another into the solution in the same way, and push it into the nostril as far as it will go, and do it

quickly, or a clot will form so you cannot pass it at all. These feathers are to be pushed in until there is no more room in the nostril for another feather. If there is bleeding from both nostrils at the same time, both must be treated in the same way. It will arrest the hemorrhage in a few minutes, as the writer has been using the treatment for a quarter of a century and has never known it to fail in a single case. After the feathers are all in and the bleeding stopped, the ends may be clipped off with scissors to within a half inch of the nose.

In a day or two the formation of mucus in the nose will loosen all the feathers so they can be easily pulled out.

This treatment is to be employed in all cases of bleeding from the nose that fail to yield to the ordinary remedies.

SORE LIPS.

THIS is an affection of the lips with which almost every one is to some extent familiar. Such sores are generally known by the very familiar term of "cold sores," as they are supposed to arise from common "colds."

In most cases they do not arise from "colds" at all, but are due to errors in diet, or to eating too much rich food, such as fat turkey. The sores as a general thing are first seen in the morning, and are beneath the mucous membrane of the lip in little lumps sometimes as large as a pea or soup bean. If allowed to break out, they become sore and distressing, disfiguring the mouth for about a week. Some very pretty ladies are frequently ruined for a week or two at a time by such unsightly sores upon their lips.

Treatment.—The free application of alcohol to the

inflamed lips as soon as the sores begin to make their appearance, and repeated four or five times during the day and twice during the night, will always dry up the inflamed part and prevent breaking out. This treatment seems to be absolutely sure if carefully carried out, and therefore it is not necessary for any one, understanding the treatment, to suffer from raw, inflamed, and bleeding lips. When the swelling is first observed, the alcohol must be freely applied, and it ought to be repeated about every two hours during the day. If no alcohol is in the house, spirits of camphor may be used instead.

CRAMP COLIC.

THIS is an affection that comes on periodically, as a general thing, and yet the paroxysms are not always regular in returning. Some persons may have the attacks a dozen times per year, while others may not have more than half that many in the same length of time.

Symptoms. — Sometimes the violent paroxysms of cramp colic are preceded by warning symptoms, such as transient pains in the bowels, or a distressed feeling after meals, attended frequently with headache. Such symptoms often precede the regular attack a few days. Frequently, however, cramp colic breaks out in the night without any warning whatever, and is usually brought on in such cases by eating too much or partaking of something very hard to digest.

The pain is severe to commence with, and rapidly increases until the cramp or spasm of the abdominal muscles sets in. Then there is a terrible feeling of constriction as if the stomach and bowels were being squeezed by some

powerful force, the patient screams and groans and great drops of perspiration stand upon the face. As a rule, there is no amount of heat in the form of poultices or towels dipped in hot water, that will assuage the terrible pain, and it is always best to resort to other and quicker means for relief.

Treatment.—The treatment consists, first, in giving something for immediate relief, and second, to put the patient upon a regular course of treatment that will prevent the return of the paroxysms. For immediate relief there is nothing so good as a full dose of morphine, and in almost all cases it is better to give from a quarter to a half grain at a single dose. If the patient is large and strong, whether male or female, a half-grain dose of morphine will not be too much. There is nothing counteracts the effect of morphine so thoroughly as pain,—the terribly excruciating pain of cramp colic,—and the cases that do not require a half-grain of the drug are few. It is frequently necessary, even when a half-grain is given, to follow it with another dose within an hour.

After complete relief is afforded by the remedy, the paroxysm may be considered broken up. The next and most important thing to do, is to give such remedies as will prevent the return of the disease. Happily for all sufferers from this terrible affliction, there is a treatment given in another part of this book that seems to be absolutely sure to cure it, as the author has never known it to fail. The remedy is the extract of *ignatia*, and must be given just as directed in the treatment of “*atonic dyspepsia*,” to which the reader is referred.

The drug should be taken for several months.

GOITRE.

OTHER names: "thick neck"; bronchocele.

The name by which this disease is most frequently known, is "thick neck," and consists of an enlargement of the thyroid gland. The tumor appears upon the throat just below the prominence known as "Adam's apple," and may be moderate in size so as to attract but little if any attention, or may be very large so as to cause serious deformity. It is usually slow in its development, and is much more common in females than males.

Treatment. — This consists in the prompt and regular application of the tincture of iodine to every part of the enlarged gland. The drug thus applied has a powerful effect upon the tumor, and will almost always cause its absorption within a few weeks if commenced soon after it makes its appearance.

If the enlarged gland is neglected for several years, during which it is allowed to develop into an unsightly tumor, it is liable to become hardened or cartilaginous, and consequently incurable. After it has passed into a cartilaginous state, iodine will not affect it, and it can be removed only by the surgeon's knife. All glandular enlargements, this one included, can be favorably affected with the tincture of iodine, if not entirely overcome, provided they are treated when they are comparatively small. Then they are soft and easily removed by absorption.

As soon as a goitre makes its appearance, it must be painted twice per day with tincture of iodine, covering every part of the enlargement and extending a little beyond it in every direction. After it is applied for two or three days in this way, the cuticle will peel off. Then the

application should be discontinued for four or five days and commenced again. Meanwhile, iodide potassium should be given every day as follows:—

Iodide potassium, one-half ounce,

Simple syrup, one pint.

Mix, and take a tablespoonful three times per day before meals.

ULCERATIVE SORE THROAT.

THIS is an affection characterized by an ulcer, usually upon one of the tonsils or the soft palate, and unless due to syphilis or consumption, is generally acute, and does not extend to the air passages so as to seriously affect the voice.

Treatment.—All such ulcers occurring in strong, healthy persons can be cured in forty-eight hours or less time, as follows: Place in the bottom of a teacup the strongest possible solution of carbolic acid. Such a solution will only contain five per cent of water. Then take a soft swab and carefully clean the ulcer, but do not make it bleed. After this is done, dip the rounded end of a common lead pencil into the solution of carbolic acid, and with it touch every part of the ulcer so as to turn it perfectly white. The solution should only wet the end of the pencil that is rounded off with a knife especially for the purpose, and then there will be but little danger of burning the tongue or any other part of the mouth. If this is properly done the ulcer will heal in a day or two. The second application of the remedy is rarely necessary. Ulcers occurring on other parts of the body, if not due to syphilis, can be healed in the same way, as a general thing. In cases of scrofula there is a low state of vitality as a rule, with a dis-

position of all ulcers to spread; in such cases the carbolic acid does more harm than good. All ulcers found about the eyes must be let "beautifully alone" until an oculist or experienced physician can attend to them.

ENLARGED TONSILS.

THIS disease usually commences in childhood, and is mainly due to a succession of "colds" and a chronic sore throat. In such cases the tonsils sometimes become so large as to make breathing more or less difficult. For many years the writer adopted the popular plan of removing a portion of such tonsils with the tonsilotome or a suitable knife.

Treatment.— In almost all cases the absorption of enlarged tonsils can be effected by rubbing them once per day with a crystal of sulphate of copper, which is usually known by the name of "blue vitriol." The crystal can be dressed, notched like the flint of an Indian's arrow, and tied in the end of a split stick, so there is no danger of its falling out in the throat while being used. The treatment in this way should be kept up for three months, as it only takes a minute every morning. Sometimes a crystal of alum acts equally well.

CHRONIC NASAL CATARRH.

OTHER names: catarrh; chronic coryza.

This is a chronic inflammation affecting the mucous membrane of all the passages of the nose, usually causing chronic swelling of these membranes and an increased flow of mucus. It may be attended with an impaired sense of smell and partial loss of hearing.

Causes. — It is mostly due to frequent attacks of the acute variety. It is also caused by irritating drug powders and vapors. Syphilis is among the frequent and persistent causes of the affection.

Symptoms. — The most marked symptom is an increase in the amount of mucus discharged from the nostrils. As the disease develops, the mucus gradually increases in quantity, and running down into the throat causes frequent paroxysms of "hawking," especially in the morning.

The senses of smell and hearing are liable to be both impaired, the former by an inflamed condition of the membrane in which the sense of smell resides, and the latter by closing tubes connected with the internal ear.

Any changes calculated to cause a common cold, precipitates an acute attack. The inflammation often involves the tear duct, so as to close it in one or both eyes. In such case the lachrymal secretion, commonly called "tears," overflows, and the patient seems to be in a state of constant weeping. This is greatly aggravated by the chilly winds of winter.

Termination. — If properly treated and the treatment continued for a sufficient length of time, the great majority of cases ought to be permanently cured.

Treatment. — The author takes the position, and his opinion is based on extensive experience, that nasal catarrh is almost always a constitutional disease, and cannot be cured nor permanently benefited by a local remedy. Therefore the rational course to pursue is to find out what the disease is, as the trouble in the nose passages is not the disease at all, but simply the local expression of a constitutional affection. It is doubtful if the irritating influences that develop common catarrh would ever bring on that so-

called disease if it were not for coexisting scrofula or some other form of blood contamination; therefore, the treatment must be from the first, general and constitutional instead of local, as the latter at best is only palliative. If a sore or ulcer exist on any part of the body and will not heal of itself, or by proper treatment locally, it is evident that the trouble is constitutional. The same theory applies to catarrh, as it is rarely cured by sprays, douches, and snuffs.

The following, if given for a sufficient length of time, will cure almost all cases:—

Iodide of potassium, two drachms,

Compound syrup of stillingia, one pint.

Mix, and give a dessert-spoonful three times a day. When this remedy is given for four or five days, all the catarrhal symptoms are aggravated, the flow from the nostrils is increased, the tenderness of the membranes is greater, and there is usually sneezing, as if the patient had taken cold. In such cases, it is best to leave the remedy off for a couple of days and then give it in teaspoonful doses. It will probably increase the difficulty, even in the reduced dose, but not to any great extent. The fact that it does aggravate the symptoms proves that it is the proper remedy, and affords strong hope that it will ultimately cure. After it is given for a number of weeks in teaspoonful doses, it will cease to aggravate the affection by the system becoming accustomed to the drug. Then it may be gradually increased to a half tablespoonful, or a dessert-spoonful, which is the same thing, and continued for six months. This remedy sometimes causes a little sore throat when taken for a long time or in too large doses. When it does this, it should be left off for four or five days. When it is given for a long time in small doses, as above

recommended, it is a sovereign balm for chronic catarrh; but, unfortunately, the great majority of patients will leave it off after a few weeks, saying "It made me worse." Special attention is called to this feature of the remedy: It always aggravates the case, and this is the greatest proof that it will finally cure. As local treatments of every kind, given with a hope of cure, are a useless waste of time, none are recommended except the following, which seems to be the simplest and one of the very best: Snuff rich milk up the nose a half-dozen times a day. It accomplishes a great deal in relieving the irritated membranes, as the milk on evaporating leaves a thin, protecting film that shields the inflamed surfaces from the air. It is important to remember that deafness, resulting from existing catarrh, is greatly relieved, if not entirely cured, when the catarrhal inflammation permanently subsides under this treatment. As the deafness is usually caused by swelling of tubes in the throat that connect with each ear, the iodide potassium is strongly indicated to stimulate absorption and get rid of the swelling.

ACUTE ARTICULAR RHEUMATISM.

OTHER names: inflammatory rheumatism; rheumatic fever.

This is an acute constitutional disease, attended by inflammation around the joints, and commences with fever, the latter being high or moderate, according to the character and extent of the inflammation.

Causes. — The predisposing causes are largely hereditary. The exciting causes are exposures to wet and cold.

Symptoms. — The disease usually begins abruptly with

a chill, or chilliness, swelling and stiffness of the joints, intense pain, loss of appetite, and a hot fever, the temperature reaching sometimes the extreme limit of inflammatory affections, or one hundred and ten. The pulse is not correspondingly rapid, seldom reaching one hundred per minute in adults. The urine has a sour smell, characteristic of rheumatism, and the bowels are constipated. The fever continues throughout the attack, subject to remissions. As there is no possible chance for mistake in recognizing this disease after a person has once seen a case of rheumatism, it is unnecessary to give all the symptoms.

Termination.—The mortality is very low, as there are only three or four deaths in a hundred cases, and those are usually due to heart affections.

Treatment.—Twenty years ago this was considered an incurable disease, so far as remedies were concerned, but was regarded self-limited, running its course in six or eight weeks. A knowledge of these facts caused an eminent physician to give an amusing but painfully unsatisfactory answer to one of his patients. The patient said, “Doctor, what is the surest cure for rheumatism?” The doctor answered, “Six weeks.” The idea became so thoroughly engrafted in the minds of physicians that the term of six weeks was necessary for the cure of rheumatism, that years and years went by, during which but little effort was made to find a new remedy for the most distressing affection that afflicts mankind, and to-day there are thousands of doctors who believe that the “do-nothing” treatment is as good as any.

The author has had an extensive experience with acute inflammatory rheumatism, and radically dissents from this view of the case, believing that there is a drug treatment,

when properly conjoined with hygienic measures, that is almost infallible in the severest and most acute cases. The drug treatment to be hereafter given depends for its success upon other things that are almost as necessary as the drug itself. If the patient has all the symptoms of the most violent form of rheumatism, he must be put in bed, between heavy blankets, whether it is winter or summer, and made uncomfortably hot by a superabundance of bedclothing. The object of this is to encourage copious perspiration, and this should be further promoted by all the cold water the patient can drink. If he can drink a pint every hour it is all the better. In addition to this, give the following as directed:—

Salicylate of soda, two drachms,

Water, four ounces.

Mix, and give a teaspoonful every half hour for twelve hours, after which give it every hour until it is all given. This is for adults, and if required for children must be reduced accordingly. In the great majority of cases the pain, fever, and swelling will rapidly decline, and the disease is often brought under absolute subjection within twenty-four hours. To assist this treatment, however, remedies must be given to act on the kidneys, and carry out of the blood those salts that are supposed to be the main cause of rheumatism.

For this purpose the following is probably the best remedy that can be given:—

Sweet spirits of nitre, two ounces,

Acetate of potash, one-half ounce,

Water,

Simple syrup, of each, one ounce.

Mix, and give a teaspoonful every three hours.

If the bowels are bound, they should be moved freely with the following:—

Epsom salts, two ounces,
Cream of tartar, two ounces.

Mix thoroughly, and give a heaping tablespoonful in a glass of water. This dose may be repeated in ten or twelve hours, the object being to get watery discharges from the bowels.

In the practice of medicine total failures often occur from the neglect of little things, of things seemingly unimportant, and this is why salicylate of soda, as it is usually given, often does but little good. Instead of giving it in divided doses every half hour, it is usually given in heroic doses every three or four hours. In this way an unnecessary drug effect is obtained when only a drug effect upon the blood is desirable. When given every four hours, fifteen grains is the usual dose. When given every half hour as herein directed, the dose is about four grains, which means thirty-two grains in four hours, or about twice as much per hour as would be given by large doses. The remedy is not given to act on any special organ, but to sweeten and change the character of the blood that is always sour in rheumatism. While this is being done with a chemical, the poison in the blood is largely diluted by copious draughts of cold water. The patient is covered up with blankets, and is practically in the hot room of a Turkish bath-house. In this way, every one of the sweat glands—and there are millions of them—is stimulated to its utmost, and water pours out through every inch of skin. Meanwhile the kidneys are carrying off water, and in twenty-four hours the watery portion of the blood is almost entirely changed. Salicylate of soda is frequently given

to patients that are out in the open air and trying to attend to business. It is practically worthless when given in this way.

When patients have had one attack of rheumatism, they are liable to another, and should always keep their bodies warm with heavy flannels from head to foot.

MUSCULAR RHEUMATISM.

THIS disease has a number of other names, according to the part of the body in which it is located.

Torticollis is a form of the disease affecting the muscles of the neck, and signifies a wry neck, or stiff neck. It is usually on one side, and the head is always inclined towards the affected side. In such cases an attempt to turn the head or straighten the neck is attended with great pain.

Cephalodynia is a name given to a form of the disease affecting the frontal muscles and back muscles of the head. In this form the muscles of the eyes may be affected so that movements of those organs will excite great pain.

Pleurodynia is the form of muscular rheumatism involving the thoracic muscles, or the muscles of the chest, and is often mistaken for pleurisy, or neuralgia of that region.

Lumbago, which is also called lumbodynia, is a form of the disease attacking the muscles of the lower part of the back. This is by far the most common form of muscular rheumatism, and probably the most distressing.

Termination. — This is always favorable so far as life is concerned, as it is unattended with heart affection and never results fatally.

Treatment. — In all inflammatory affections, rest is one

of the most important features of the treatment, as motion causes pain, and whatever causes pain increases the inflammatory condition.

Muscular rheumatism is one of the most obstinate difficulties that ever confronts a physician. As in all other diseases that are incurable by a drug treatment, a multiplicity of remedies are given in the text books for this.

The author has gone through the entire list time and again, and is compelled to acknowledge he has never found a remedy that exercised any curative effect upon the disease. It is considered unnecessary to give a list of the drugs usually employed in the various forms of muscular rheumatism, as they all seem to be worthless. Within recent years, however, the bromide of lithium has come to the front as a sovereign balm in the affection. It is claimed on very high authority to be a specific. It is given in twenty-grain doses, four or five times in twenty-four hours, and in extreme cases, the dose may be increased to thirty grains. Each dose should be given in a half glass of water.

So far as the old remedies are concerned, the hygienic treatment is twenty times better than all of them. As lumbago is the worst and most frequent form, the treatment aside from the use of drugs is carefully given, and consists in wearing a heavy flannel pad around the entire body, extending from the middle of the back to the lower part of the spine. This excludes the air from the surface and favors rapid recovery. As persons who have had this trouble once are very liable to have it again, it is best to wear the flannel all the time in cold weather. If woollen irritates the skin too much, cotton flannel may be used in its place.

JAUNDICE.

OTHER names: catarrh of the bile ducts; catarrhal jaundice.

This is an acute inflammation of the mucous membrane of the bile ducts, and also of that part of the small intestines called the duodenum. It is attended with derangement of the stomach and bowels, the skin is yellow, itches terribly, and there is mild fever.

Causes. — Excessive eating is the most frequent cause. Malarial influences also develop the affection, but in such cases it is very chronic, or much less abrupt in its commencement.

Symptoms. — It begins with distress at the pit of the stomach, the tongue is coated, appetite usually lost, sickness of the stomach, and sometimes vomiting. The bowels are generally loose, and there is mild fever. In four or five days the eyes become yellow, and a jaundiced condition spreads over the whole body. The skin becomes dry and itches continually; the bowels are bound, stools usually very light in color, showing the absence of bile, there are pains in the bowels as if from colic, and the urine is unusually dark.

Termination. — This is almost always favorable.

Treatment. — The patient should rest quietly in bed or in an easy-chair, and be put upon a generous and unirritating diet. The inflammatory condition of the small intestine is best met by small doses of mercury, given as follows: Mercurius dulcis, the first decimal trituration, twenty-five grains. Divide into five powders, and give one powder every hour, placing each powder on the tongue in a dry state, and giving a swallow of water to

wash it down. As the powders work off, the stools will change from a light clay color to a dark brown, finally becoming natural. The drug acts both on the bowels and the liver, and usually places the patient on the road to recovery ; but the kidneys must be stimulated in order to get rid of the bile with which the blood is heavily loaded, and which is causing the intense itching, and which, sooner or later, must give rise to bilious sores over the body. The best remedy for this purpose is the following :—

Sweet spirits of nitre, two ounces,
Acetate of potash, a half ounce,
Water, two ounces.

Mix, and give a teaspoonful every three hours in sweetened water.

Under this treatment, the urine will become very highly colored, and the yellow will fade rapidly from the eyes and skin.

ACUTE NASAL CATARRH.

OTHER names : “cold in the head ;” acute coryza.

This is an acute inflammation of all the membranes of the nose and those directly connected with the cavities of that organ, and is attended with fever, more or less distress in the head, and a discharge of watery mucus from the nostrils.

Causes. — Changes in the direction and temperature of the air are the most common causes. Sitting in a draught of air, whether it is particularly cold or not, is a frequent cause. Exposing the feet to cold and wet, or a changing from warm apartments to cold ones, often brings on an attack of “cold in the head.” Irritating vapors and the

dust of certain drugs produce all the symptoms of common cold. The most noted one of these is turpentine. Where it is used in inside painting, its vapor affects the membranes lining the cavities of the nose in such a way as to produce all the symptoms of a violent cold. Powdered ipecac acts as an irritant to these membranes, and affects some druggists so they cannot handle it at all.

The pollen, or fecundating dust of certain flowers acts as an irritant upon those who are peculiarly susceptible to it, affecting the membranes of the nose and eyes, producing all the head symptoms belonging to a common cold; but the attack is much more protracted, and is usually called "hay fever."

Symptoms. — A "cold in the head" is often preceded by a dull, heavy feeling, with headache over the eyes, chilly sensations, and a tendency to sneeze. This is speedily followed by a flow of watery mucus from the nostrils, dripping in such a way as to render the constant use of the handkerchief necessary. The membranes of the nose are red and inflamed, and sooner or later the discharge changes from a watery mucus to a mixture of mucus and pus. In five or six days, however, recovery sets in, and the patient is well within eight or ten days.

Termination. — This is favorable if properly treated from the commencement, but if neglected may drift into chronic catarrh.

Treatment. — When this trouble arises from atmospheric changes, it may be broken up by eight grains of quinine, combined with twelve grains of Dover's powder, given at one dose. This is for an adult and not for a child.

When the attack is fully developed, great relief may be obtained by giving the following:—

Tincture of belladonna, ten drops,

Water, twenty teaspoonfuls.

Mix, and give a teaspoonful every hour for six hours, then give the same dose every two hours for six hours. If there is considerable fever, give the following at the same time, allowing the doses to fall between those of the belladonna:—

Tincture of aconite, twelve drops,

Water, twelve teaspoonfuls.

Mix, and give a teaspoonful every hour until six doses are given, then leave it off for three hours, and if the fever is not overcome give a teaspoonful every hour until all is given. This dose is for adults.

GIN LIVER.

THIS is a chronic inflammation of the liver, with hardening of its substance and shrinking away of its secreting cells. There is a catarrhal irritation of the stomach and bowels, great loss of flesh, and finally abdominal dropsy.

Causes.—It is almost wholly due to the prolonged use of alcohol in some form, or, in other words, to intoxicating liquors.

Symptoms.—In the early stage of the disease, the symptoms are not strongly defined, but when a constant irritation of the stomach and bowels is attended with frequent attacks of jaundice, and the patient is an intemperate man, it is safe to infer that he has a “gin liver.” As hardening of the liver offers an obstruction to the circulation in the organ, the blood is checked in returning from the lower part of the body to the right side of the heart, giving rise to abdominal dropsy, and causing enlargement

of all the veins below the heart, and especially those about the anus, and when these latter are very large the condition is known as piles. The affection is further characterized by dyspepsia, pain in the bowels, hemorrhages from the stomach or bowels, due to engorgement of the veins.

Termination. — This is always unfavorable, and a man generally dies within a year from the time the dropsy makes its appearance.

Treatment. — As the disease is always due to a permanently hardened condition of the liver, attended with a withered or shrunken state of the secreting cells, there is no remedy that can exercise any curative power whatever upon the malady, and to attempt to accomplish anything except temporary relief of the patient's sufferings, is a useless waste of time.

GOUT.

THIS is a constitutional affection, the tendency to the disease usually being inherited, and is attended with paroxysms of severe pain and swelling of one of the smaller joints, frequently that of the "big toe." There are often deposits of the urate of soda in the joints of the fingers.

Causes. — The predisposing causes are inherited.

The exciting causes are intemperance in eating and drinking. Cold weather may also be an exciting cause.

Symptoms. — The disease occurs in paroxysms, a period of one year usually intervening between the first and second attacks. The second and third attacks are liable to be within six months of each other. After this they may come very close together.

Each attack is preceded two or three days with symptoms

of indigestion. The paroxysm almost always begins in the night with severe pain in the big toe which rapidly becomes inflamed and tender.

The foot, ankle, and leg become greatly swollen. The attack may be preceded by a chill, fever, rapid pulse, thirst, and all other symptoms attending an acute inflammation. By morning the severe symptoms subside to come on again about sundown, the disease gradually falling off in intensity until the fifth or sixth day when recovery is established.

In the chronic form of the disease the symptoms are all less severe than in the acute, and the deposits of chalk-stones are seen about the joints.

Termination. — This is almost always favorable as far as life is concerned, but the malady is liable to return unless the greatest care in reference to diet and the use of liquors is observed.

Treatment. — The best remedy for the acute form is the following :—

Salicylate of soda, two drachms,
Water, four ounces.

Mix, and give a teaspoonful every hour, meanwhile keeping the patient covered up with blankets.

This should be continued for twenty-four hours and may be expected to relieve greatly the inflammation. The pain may be controlled by the use of morphine in quarter-grain doses every hour until the patient is reasonably comfortable. A rich meat diet should be avoided and milk and soups used instead.

In the chronic form of the disease, iodide of potassium is the best remedy and may be given as follows :—

Iodide potassium, three drachms,
Water, eight ounces,
Simple syrup, four ounces.

Mix; dose, a dessert-spoonful four times a day.

In chronic gout the diet is of the utmost importance and should consist, mainly, of fruits and vegetables. Stimulants of every kind, including tea and coffee, should be dropped; pastry of every kind and eggs in every form do harm. Heavy flannel underclothing in cold weather is of the utmost importance.

HEREDITY AND HEREDITARY INFLUENCES.

THIS is a subject that every one knows something about, but that very few know much of. It has been a current quotation for many generations that the sins of the fathers were visited upon the children to the third and fourth generations, but the book out of which the quotation is taken does not say much if anything about the effect of the sins of the mothers on the offspring. In fact, the mothers did not amount to much in the literature, nor in the religion, of the day in which the language is supposed to have been written. The discussion of heredity belongs to social science, and should have a place in the schools beside arithmetic, geography, history, philosophy, and physiology. The exclusion of it from the common schools and colleges, literary, medical, and religious, necessarily impresses the educated and the cultivated, as well as the ignorant, that it is of no great importance and is not a factor in human education. Authorities pretty well agree, now, that physical derangements and mental alienations are more commonly inherited from the mother than from the male parent. Especially is this so in the diseases of the mind. Insanity and the suicidal impulse are oftener communicated from the mother to the child, and oftener to the daughter than to the son. We notice

the following distinction is observable between man and the other animals in the matter of the transmission of physical qualities. In the former, the general structure of the body, the height, the degree of development of the bones and the muscles, the tendency to obesity, leanness, etc., seem to depend as frequently on one parent as on the other; but in the dog, horse, and many other animals, the male ancestor more frequently determines the general form, size, and strength of the body. It requires but small effort of the mind to determine why the more ancient tribes of man placed so great estimate on, and gave such precedence to, the position of the man in the business of life over that of the female. In the near approach to crude and animal conditions of the race, the size, form, bony and muscular strength, were far more frequently communicated to the child by the father. These were the most important and dominant features of the individual when bodily strength was at a great premium, and when war with the wild beasts, with the elements, and with savage man constituted most of the exciting scenes of the times. It is a sad reflection that so many mothers become mentally alienated. They are compelled, with their refined and delicate nervous systems, to bear the strain of nursing and the care of the house affairs, often under poverty and privation, of which the world in its pomp and learning knows nothing.

A French report, and they are an average nation, perhaps, says, that out of 467 cases of insanity, 279 were traceable to the mothers. It is still more lamentable that, where there is a taint of alienation in the mind of the mother, the daughters are much more liable to affections of the kind than the sons.

Whilst the father in the more primitive races imparted, quite uniformly, the physical qualities, so did the mother give to the child the refining influences of the delicate temperament, with the spiritual and the love of the beautiful more and more unfolded, as the race of man spread over the earth. Thus did man become the subduer, and woman the educator, of the world. Woman's refined and delicate temperament predisposes to insanity. This will not be the case when the race is more advanced, and when better and more suitable modes and conditions of life are provided for her. It is truly distressing that mothers are so liable to transfer insanity to their daughters, who are the prospective mothers of what it is hoped will be a better society than the present. But the disposition to disease of the nervous matter is manifested in various forms and in different members of the family. It may be insanity in one member of the family, and epilepsy in another, and mere eccentricity in another, and they may all be traceable to nervous affections in the mother.

It is the usual custom of all the civilized countries for persons who come to maturity to take upon themselves the burdens of married life without any thorough investigation of the family history in reference to physical and mental affections of the person of their choice, and in case there appears insanity, epilepsy, or idiocy, as a rule they pay little, if any, attention to it. It is admitted to be true that, in the new family thus started, there may be a number of children born, and no serious deviation from health ever crop out to call the attention of the parents to the carelessness of their youth. But then, again, from physical inharmony in the father and mother, or from some local situations or misfortunes, aggravating or excit-

ing an inherited tendency, there may be a number of the offsprings of the union hopelessly diseased in mind or body, or in both. All diseased tendencies are inherited. If one man lives in a swamp and does not contract ague, whilst another beside him does, and shakes himself to death, it is not because the unfortunate one inherited the ague from his father or his mother, but it was on account of his not inheriting the same amount of vitality that his neighbor did, other things being equal. Should one man take a cold and cough a week or two, and then get well, and another contract a catarrh at the same time of, seemingly, no greater severity, and in the same house and under all the conditions and circumstances, and yet, should he continue to cough for months, and at last the doctor should decide that he had bronchitis or consumption, what would you say of such a case? You would say that there was, presumably, greater hereditary tendency in the latter than in the former case, to lung disease.

We make this general proposition: All diseases may and can be shunned and avoided in offspring by proper precautions in marriage, and in the habits of life.

If the rule will hold good in one case it will hold in all. Some persons are so fraught in their lives with harmoniously distributed vitality, that they will not contract the contagious diseases. If we should resort to the law of the survival of the fittest, in marriage, it might be decried as cruel, yet it would not seem more heartless than to perpetuate, for thousands of generations, the diseases that have crept into the veins, arteries, bones, nerves, and the brain of the present fabric of society, and threaten to shake the human temple to its foundations. There is nothing more relentless than perverted nature, nothing

in the shape of an enemy to happiness, more uncompromising and awful, than the arrested processes of the pure springs and currents of the life and soul. There is no happiness greater than that of the healthy and temperate father, clasping his son or daughter in his arms, and blessing each with a father's love. There is no person on earth more happy than he, unless it should be the mother with the warm and the rose-tinted cheek, surrounded by comfort and possessing a true and a loving husband, bestowing a mother's love upon her sons and her daughters to whom she has given the pure currents of life, and the thrill of an electric brain. It was once said that there was silence in heaven on a certain occasion, for a brief space of time. Might not the angels in the cloisters of the skies have laid down their implements of praise, and ceased their songs to gaze on a sight like this?

THE INFLUENCE OF HEREDITY ON LONGEVITY.

It is not disputed that long life is inheritable. On the other hand, all seem to admit, with one accord, that great age in ancestors is a guarantee, more or less, to the descendants, of a long life. In this matter, however, many would-be students of nature have only the most general idea of how to proceed to gain information in any particular case, as to his lease of life, his power to resist disease. A keen discretion in prognosis, an ability to weigh the vital powers at the time of a crucial test, at the climax of a term of illness, or at other times, is no mean qualification in a nurse or a physician. In writing a book to be the close companion of the fireside, the home, and the nursery, one should not withhold the key that unlocks the door to the chamber of the secret forces, and reveals the natal

and ante-natal sworded angel, to use a metaphor, standing guard to perpetuate the life of the patient. The life faculty is plainly shown in a certain location on the cranium, or the skull, one inch above and perpendicular to the large prominence immediately back of the ear. The degree of prominence in this locality invariably marks the power of endurance, the ability to resist disease, and the strength of tendency to longevity, or length of the life. Children who recover from long and severe illness will, in almost all cases and instances, be found to measure wide between these two points described as being one inch above the prominence immediately back of the ears. If the head is narrow instead of wide here, there is less probability of long life and of recovery from disease, and this will be in proportion to the depression and lack of development. A person with a small head, say a man with a six and a half hat, might appear narrow, but if discrimination were used it might be easily determined whether or not there was fulness or depression. If you examine the heads of persons of from sixty to seventy years of age, and, especially if they are strong and sprightly, you will find this department of the brain rounded out, full, and, sometimes, projecting into almost a sharp protuberance. In running back in the ancestry of such persons you will always find that a number of the family have lived to a great age, but it is not always the case that it is the immediate ancestors, but may be the grandfather or the grandmother, on one side; where the grandparents on both sides are long-lived there will be a greater number of the descendants having this faculty well outgrown.

MENTAL CHARACTERISTICS.

IF this pronounced tendency to the inheritance of traits in the physical character is an absolute and incontrovertible fact, which is easy of proof and demonstration, the same may be looked for in mental characteristics. And when we consider that this wonderful truth is established, beyond the possibility of a reasonable doubt, it then becomes a duty to study the details of its operation upon the present and the future generations, and to diligently inquire into the uses that we, as individuals, might make of the knowledge of it in hastening the answering of the petition of the prophet: "Lord, I beseech thee, show me thy glory." Our race has come up from crude conditions, through great tribulation. They have sought for the lamp of Aladdin, and in their sleep they have dreamed of Pandoras, yet in their visions they have too seldom sighted "the true and the living way" that is to guide mankind in struggling up the steep of time, that the gates of the ineffable may be opened to him, and that he may be able to help this old world ever grow brighter.

There is this difference between the vitative faculty, and what is termed the vital temperament: The vital temperament gives bounding of the blood and vigorous digestion, roundness of the limbs, and fulness of the cheeks; whilst the vitative faculty may or may not be marked by these, yet is always connected with tenacity of life. In the vital temperament, the powers of the mind and the body may be vivacious until middle life, or some later, and then rapidly fail, whereas, in the case of the high prominence of the head in the location of the organ, there is likely to be a gradual growing and strengthening of the body and

of the mind, also, until a late period in the individual's years.

INTELLECT AND SPIRITUALITY INHERITABLE.

SPIRITUALITY and intellect are inherited. They are gifts that descend from parents to child, and when liberally bestowed, and practically outgrown, are conducive to health, long life, and happiness.

Spirituality, as marked in the physical organ, is located on the top of the head, but toward the sides, and separated by another organ, and is half-way between the edge of the hair in front and the crown in the back, and, when well developed, gives broadness to the head in that region, from side to side. The intellectual embraces all that part of the head that is called the forehead.

Man and other animals find their associates, employments, activities, and pleasures, in their respective spheres of existence. It is hardly conceivable to one who is not endowed with literary tastes and abilities, how another can find pleasure in such gifts and pursuits. It is mortifying to read a splendid poem to a friend or a neighbor, and have him ask you for a chew of tobacco instead of offering a compliment on your manner of reading it, or of noticing some remarkable beauty in the verse. It is likewise very difficult, if not impossible, for one who is narrow in the region of the head designated as occupied by the spiritual sphere of the mind, to understand the uses and pleasures of this higher and acuter sense of the soul of man. It is well known that there are those who complain that divine providence has neglected to dispense to them the favored

gifts, and they have been heard to remark that it was strange that they could not be the possessors of such grand and noble talents. Parental love weeps over a child that is a monstrosity in form, or a failure in brain development, or diseased in a hopeless manner. So does a true humanitarian grieve to behold so many of our race deprived of the gifts that make life sublime, and thrill the hearts of men with song and music, and cause the canvas to speak to the living eyes, and the stone to utter words of praise to the infinite.

There is no manner of use to state facts and print them in books, if they are not practised. If you look in the mirror and go your way and forget what manner of man you are, you have not profited by the performance. When we make the declaration, — the clear and positive statement, — that the spiritual function of the mind, the faculty that determines the probable length of life on the earth, by its greater or less development, the intellectual powers, and, indeed, all the instincts, appetites, and inclinations, are inherited, even the disposition to burn, murder, and poison, the generality of the people of the age may be poorly prepared to receive it.

In view of this state of things existing among a large class of the population of the earth, many of the most delightful, and the most practical truths find their way to the understanding of men in much the same fashion as the light of the day reaches the inhabitants of the deep valley by struggling over the mountain peaks. Therefore, we are not writing for those who cannot or will not reason, except in the sense of trying to entice them into the path of unprejudiced thoughtfulness. We only mention these Godlike proclivities of the human creature, the intellectual and the spiritual, as qualities of descent from an earthly

parentage, to show their connection with the health and the physical life in their broader stages, and not to refer to them in a religious sense.

EFFECTS OF EMOTIONS OF THE MIND OF THE MOTHER ON THE CHILD.

ARGUMENT is not necessary to establish the fact that violent and excessive excitement of the mother's mind sometimes proves disastrous to the unborn infant in producing "marks," deformities, idiocy, epilepsy, etc. We remember once being acquainted with a family in which there were four idiots of different ages, some two years, running down from the first to the second, etc. None of them could articulate, and all walked backwards on the hands and the heels. It was all caused by the mother witnessing the fall of a man who was stunned to unconsciousness and afterwards crazed, by a fall. Another case which seemed certain of this kind of origin in an otherwise healthy family, was that of a young man of rather fine business talent and good mind, generally, who had epilepsy from the effect of the mother seeing a rat die with convulsions from strychnine poisoning. Many slight marks which point back to some taste or fancy of the mother before the birth of her child are somewhat amusing, but are no less confirmatory of the principle in question.

These and many other instances that might be cited prove that through the soul and the life of the mother pass the influences which are to become as the brush of the artist and paint the character of the individual. But whilst the fact is easily discoverable when it takes a physical turn, it requires more thought and attentive reasoning

from cause to effect when it comes to matters of the mind. It has been sufficiently demonstrated to clear away all doubt, that the mother, if favorably situated and so desires, may incubate her child to be a poet or a mathematician, or both. If she exercises her mind on these or any other subjects in a systematic way in the time of her pregnancy, she may safely calculate on results. A certain lady decided in her mind that she would like to have her child, who she imagined would be a son, a poet.

The child was born in due time and the mother was disappointed in it not being a male child, but she was a rhymer all the same, and attained distinction in her writings. The mother had read the standard poets, and had made some efforts herself in the direction of verse during the time of her term. We well know a family in the West who illustrates this feature of descent in a rather remarkable way. The young mother was absent from her husband and was lonely; she would go out in the wild, deep woods and gaze on nature in her crude but bright and grand glories, and would draw pictures and designs in the sand on the shores of a stream, and would make sketches on the rocks. And often in these haunts of hers she would sing the rural ballads she had learned. The daughter early in her life took to landscape painting and trying to write verse, and went wild, almost, over music. We knew a family in which there were two sons, all the children of the marriage. The mother informed us that in the time of the uterine life of the first she loved and worshipped the husband, but with the younger she did not love him but hated him because she had found that he was false to her and was not worthy of her love. When the younger son was born he was diseased and hated his father as soon as

he was old enough to do so. The mother of the Pomeroy boy hated her husband and used to want to kill him when he was butchering the animals. The boy was a murderer at eight years old, and is in prison at the age of thirty or more on one of the islands near Boston. Napoleon Bonaparte was the greatest expression of military genius that ever lived. His mother accompanied her husband out on to the field, and witnessed the progress of battles previous to his birth. Among his first boyish performances was the arranging of mock men in lines of battle, and deploying them so as to take military advantages. Beethoven was a great musical composer. It is said of him that he received his wonderful talent from parental and maternal emotions. He composed sonatas at the age of thirteen, and in his last years, though deaf, he gave to the world specimens of musical art that can never die.

But it is not so much to have produced the prodigies of genius nor the muscular marvels, that we urge attention to these great and living and practical truths, but more to fix upon the mind that the best inheritance one can leave is an ennobled and purified posterity. It is to urge the plea of abstinence from the use of stimulants and all excesses, even that intoxication of the mind that is often connected with business, going on from one degree of strain to another until the life is sapped and all source of happiness is crushed out.

We urge attention to these matters, again, because the men and the women of the present are the custodians of the happiness of their successors in the oncoming ages of the world. Though your forms may sleep in the dust, blest in memory or not, according as you have lived, they will think through your brains and act through the physi-

cal machinery of your lives. Do not be sick. Do not hand down to your sons and daughters shattered constitutions and poor vitality. Seek the best and the surest means of restoring health and preserving it, and remember that "common sense" is a splendid hygienic guide.

CONGESTION OF THE KIDNEYS.

OTHER names: catarrhal nephritis; renal hyperæmia.

Congestion of any organ always signifies an increased amount of blood in the blood-vessels of that organ. If the arteries are distended, as they sometimes are in congestion of the kidneys, the affection is termed an active congestion of the kidneys. If the veins only are distended, it is called a passive congestion. Congestion of the kidneys, whether active or passive, is attended with pain and a frequent desire to urinate, the urine being scanty, high colored, and sometimes bloody.

Causes. — The active form may arise from exposure to cold, or from taking irritating drugs, either by the mouth or by inhalation. One of the worst of all drugs in this respect is turpentine, and for this reason many persons cannot sit in a newly painted room in which turpentine has been used without experiencing great irritation of the kidneys.

Passive congestion of the kidneys may be due to diseases of the heart, lungs, or liver, or to the condition of pregnancy.

Symptoms. — In the active form there is pain over the kidneys, the bladder is irritable, with a continued desire to pass water, while the quantity is small and of course high

colored. There is a slight fever, headache, more or less sickness of the stomach, and sometimes vomiting.

Termination. — Usually favorable if properly treated.

Treatment. — In dealing with all diseases, the most important thing to be done is to remove the cause. If the cause of this disease is irritating drugs, the urine should be diluted by drinking large quantities of water so as to weaken the effects of the drug and stop its irritation.

The remedy that seems most applicable to both forms of the affection is digitalis, which may be given in ten-drop doses of the tincture, four or five times in twenty-four hours.

The pain is best controlled by sulphate of morphine in one-fourth grain doses, two or three times in twenty-four hours.

DIABETES INSIPIDUS.

OTHER names: polyuria; polydipsia.

This is a disease characterized by the passage of large quantities of urine, without sugar or albumen.

Causes. — More or less hereditary. A disease of childhood or young persons, chiefly, and more liable to occur in men than in women. May be caused by drinking freely of cold water, or from chronic debility.

Symptoms. — There are two principal symptoms that characterize this disease, and when always present are sufficient, in the absence of sugar in the urine, to determine its character. The first is great and continued thirst. The second is the habitual discharge of an immense amount of urine, in which no sugar is found. Either attending the large flow of urine or preceding it, is a general derangement of the nervous system, attended

with headache, irritability of temper, and loss of memory.

Termination. — In reference to a radical cure, the result is not very favorable. If, however, the disease is due to syphilis or some other affection that is curable, the diabetes will disappear on removal of the cause producing it.

Treatment. — If syphilis is the cause, iodide potassium should be given in small doses for a long time, as follows :

Iodide potassium, two drachms,

Water and simple syrup, each a half pint.

Mix; dose, a teaspoonful three times a day.

After it is given for a few months, the dose may be gradually reduced to a teaspoonful. At the same time the following may be given :—

Corrosive sublimate, six grains,

Water, one pint.

Mix; dose, a teaspoonful night and morning.

This may be given during the whole time that the iodide of potassium is being taken.

DIABETES MELLITUS.

THIS is a chronic disease in which grape sugar is present in the urine, with a profuse urinary discharge, and a constant tendency to fall away in flesh and strength.

Causes. — The tendency to the disease is often hereditary, it is most frequent in males, and occurs at all times of life, but mostly between thirty and fifty years. It is also due to diseases of the nervous system, involving the liver and kidneys. Starchy food and liquors are also exciting causes.

Symptoms. — Urination is much oftener than in health,

and the amount of water passed is increased, while there is pain in the region of the kidneys.

The amount of urine passed in twenty-four hours may range from a half gallon to three or four gallons. The amount of sugar in the urine is very great, and if a little of it is spread on a piece of paper in the summer time, it will attract the flies as readily as if it were table syrup. Another easy way to get an idea of the amount of sugar contained in a sample of urine is to pour some of it in a broad, flat dish, cover it over with netting to keep the flies out, and allow it to evaporate in the sun and air. When the water is all gone a thick syrup or dry sugar will be found on the bottom of the dish.

Sugar in the urine causes itching and burning along the urethra and at the neck of the bladder. In females it causes itching of the external sexual organs.

One of the most notable symptoms of diabetes is a thirst that nothing will allay. The most frequent group of symptoms are those of dyspepsia. The bowels are generally constipated, and the stools are light colored. The progressive loss of flesh is the most frequent and alarming symptom.

Termination. — This is decidedly unfavorable so far as a cure is concerned, and in the great majority of cases a fatal termination is reached within a few years.

Treatment. — In the line of drugs nothing has ever been found to exercise a curative influence upon the disease. In other words, no drugs are known that will cure diabetes, and therefore the treatment is almost wholly one of diet. As the morbid conditions consist of an abundance of sugar in the urine, all articles of food calculated to produce sugar must be left off, and these include sugar itself,

and all fruits and other articles of food containing sugar, and all starchy articles, such as bread, potatoes, peas, rice, beans, oatmeal, cracked wheat, and corn. The diet must be almost wholly animal food.

Tea, coffee, and milk may be used at the table without sugar.

A drug treatment of any kind can do but little if any good, except to relieve symptoms. Where the nervous disorder is of a character to prevent sleep, and this is frequently the case, sulphonal is probably the best remedy, and ten grains, either in tablet or powder, given every night at bedtime, may be sufficient for months to secure for the patient refreshing sleep. In time, however, the dose will have to be increased to fifteen grains, and finally, thirty or forty grains may have to be given, but such cases are rare.

GALL STONES.

OTHER names: hepatic colic; hepatic calculi; biliary calculi.

This affection consists of biliary deposits, either in the gall-bladder or bile-ducts. Whenever one of these deposits or gall stones passes into the duct leading to the bowels, the walls of that duct are stretched and sometimes lacerated, causing in either case great pain, which is commonly called bilious colic.

Symptoms. — Hepatic colic commences with the first attempt of a gall stone to pass along the bile-duct, and therefore as soon as the stone leaves the gall-bladder the colic, with all its agonizing pain, begins, the seat of the gall-bladder being the focus of distress. The muscles of the abdomen are sore, there is sickness of the stomach and

vomiting, pulse feeble, skin pale. The paroxysm may continue for several days, remissions of the distress usually occurring, the pain finally ceasing when the stone reaches the bowel. When the stone reaches the intestines, all the distressing symptoms suddenly subside and the jaundice begins to fade.

Termination. — This is usually favorable, but if the stone is too large to pass through the bile-duct and enter the bowel, an abscess must be formed in the duct, allowing the stone to escape into the abdominal cavity outside of the bowel, causing fatal inflammation.

Treatment. — As the pain attending the passage of a gall stone is one of the very severest that afflict mankind, the dose of any remedy calculated to relieve such pain must be very large, and therefore a half grain of the sulphate of morphine may be given at one dose, and repeated when necessary.

The application of heat by the use of cloths dipped in hot water, if placed over the liver, may do a great deal of good in relaxing the gall-duct and allowing the stone to pass.

ACUTE BRIGHT'S DISEASE.

ANOTHER name: inflammation of the tubes of the kidneys.

This is an acute inflammatory affection of the lining membrane of the tubes of the kidneys, and is attended by fever, high-colored urine, more or less turbid or muddy, and nervous derangement due to uremic poison, or to retention in the blood of uric acid and other salts that should be carried off by the urine.

Causes.—The disease is most common in young persons and is frequently caused by scarlet fever, diphtheria, and other diseases peculiar to childhood. It is also caused by the continued use of irritating drugs, especially turpentine.

Symptoms.—Dropsical conditions coming on slowly, attended with general pallor, shortness of breath, and weakness, are the symptoms characterizing a mild case of this affection, but it generally commences more abruptly and of course with symptoms more severe, such as fever, sickness of the stomach and vomiting, and pain over the region of the kidneys. There is usually diarrhœa, and also an urging desire to urinate; pulse quick, strong, and full. Sooner or later dropsy develops, when all the features are swollen, the dropsical condition soon being apparent over the entire body. Blood poisoning frequently occurs from the suppression of the urine.

Termination.—This is usually favorable, and under prompt and effective treatment recovery may be expected in from two to four weeks. A retention of the salts of the urine to the extent of producing that stupor or coma characteristic of blood poisoning from this cause, adds greatly to the gravity in all cases.

Treatment.—The patient should be kept as quiet as possible; everything calculated to irritate or disturb the nervous system should be avoided. As the affection is really an inflammatory one, the force and frequency of the heart's action should be modified by the use of a sedative as early in the disease as possible. The best is probably the tincture of *veratrum veride*, and may be given in two-drop doses to an adult, every hour for eight hours, unless it causes sickness and vomiting. In that case it must be stopped, and a little whiskey or brandy given to stop the

sickness. Whether sickness occurs or not after eight doses are given, it is best to leave it off for a few hours and then give it in one-drop doses every hour.

To avoid the irritating effects of the natural salts of the urine, these salts should be largely diluted with water so as to make the amount of water sufficient to take the irritating edge off of the salts and at the same time assist in washing them out of the body and preventing blood poison. If symptoms of such poison manifest themselves by the appearance of stupor, the remedies must be given at once to act on the kidneys, and the following is one of the best:—

Sweet spirits of nitre, two ounces,
Acetate of potash, a half an ounce,
Water and simple syrup, of each an ounce.
Mix, and give a teaspoonful every three hours.

The bowels may be kept in an easy, open condition by giving the following:—

Epsom salts, two ounces,
Cream of tartar, two ounces.

Mix thoroughly, and give a heaping teaspoonful at bedtime.

The diet should be nutritious and unirritating, milk and animal broths being the best. Stimulants of every kind should be avoided, including tea and coffee.

THE URINE.

As the urine is always affected as regards color, quantity, and other properties by diseases of any kind that materially affect a person, the appearance of the urine as well as its weight and quantity often becomes an index,

pointing to some well-known disease. Aware of the information that the various changes of the urine afford regarding diseases of the body, it becomes very important to know the characteristics of the urine in a state of perfect health. The color of healthy urine is a light amber, or about the color of very weak tea. This color is due to the various salts that the urine holds in solution, most of them contributing, more or less, to deepen the color. Now if a tablespoonful of coffee is steeped in a gill of water the color will be nearly black and the coffee very strong. If the same amount be steeped in a quart of water the color will be very light and the coffee correspondingly weak. The same conditions regulate and govern, in a great measure, the color and weight of the urine. For example: If the urine is scanty or small in quantity, it is practically sure to be high colored, as a certain amount of coloring matter must pass from the body every day. If the quantity of the urine is very large the color must be light and the weight but little above water. Therefore any disease that reduces the quantity of urine passed in a day will correspondingly increase the color. In all fevers the urine is scanty and of course high colored, and these two symptoms, "scanty and high colored," always go together in giving the symptoms of fever, when as a matter of fact the quantity of urine passed almost always regulates the color. Of course there are certain drugs or certain articles of food that increase the color of the urine and impart to it an odor characteristic of the drug or food taken.

EPILEPSY.

THIS is a disease of a chronic, periodic character, attended with violent spasmodic contraction of the muscles and a sudden and total loss of consciousness.

Causes. — The most frequent of all causes in epilepsy is heredity, as more than half the cases are traceable to hereditary influence. Excepting in those cases depending upon heredity, it is almost impossible to determine with any degree of accuracy the cause of epileptic convulsions.

Symptoms. — In almost all cases of epilepsy the attack is preceded by warning or premonitory symptoms. These sometimes commence a day or so before the epileptic seizure, and consist mainly of melancholy or a distressed state of mind. In other cases the warning is very short, not being sufficiently long for the patient to find a place of safety.

As the attack commences the patient falls, giving utterance to a scream that is characteristic of the affection. There is absolute loss of consciousness, the face is pale, and the muscles of the body intensely rigid. Soon this rigidity gives way to a convulsive action of the muscles that may last for five or ten minutes and sometimes longer. As the convulsion ceases a profound sleep sets in, which often lasts two or three hours. For some time after awaking, the patient is in a thoroughly bewildered state of mind. After the soreness caused by the violent action of the muscles subsides, and the nervous system drops into its normal channel, the patient is much more comfortable, is in a quieter and happier mood, and intellectually brighter than for some time before the attack.

Treatment. — It is probable that the most important

factor in the treatment of epilepsy is the selection and maintenance of a suitable diet. It is the opinion of the author—and his experience warrants the opinion—that meats of every kind should be abandoned, and the diet with the exception of milk and butter, should consist of fruits and vegetables. This theory has been extensively advocated, and patients have been told to use as little meats as possible. They usually interpret such advice to mean, that when they are real meat hungry they can have a good-sized piece of steak, chicken, or turkey, and with such interpretation they generally get about as much meat as other persons. If meat is allowed at all it is scarcely worth while to try to limit its use, and the only rational plan is to prohibit it absolutely. Extensive experience with vegetarians who have lived for years and years without any animal food at all, enduring in the meanwhile the severest physical labor, has shown that a meat diet for the purpose of sustaining a strong and vigorous body is unnecessary, and that people are just as strong, physically and mentally, who live on fruits and vegetables as those who eat meats. For this reason there is nothing to be lost to the epileptic by forever giving up a meat diet, except the mere pleasure of eating animal food.

Under a fruit and vegetable régime the blood-vessels of the body are not quite so full, the brain and nervous energy are less intense perhaps, and all the conditions favoring an outbreak of epilepsy are modified in their force. There is no doubt but such a dietetic course, if adopted sufficiently early in life, will cure a great many cases of epilepsy, but however efficient such a course may be, it should be conjoined with a proper drug treatment in order to break up the epileptic habit.

A multiplicity of remedies have been suggested to either modify or postpone the attack, and bromide potassium has been given for years at a time for this purpose, the amount being from thirty to fifty grains per day for weeks. The drug simply acts as a check-rein to the nervous system and exercises no favorable influence upon the disease, except while it is being given, and yet when it is used in connection with a fruit and vegetable diet, it may exercise a curative effect by postponing the paroxysm sufficiently long to break up the epileptic habit. A far better remedy, however, and one that covers a wider range of cases, is valerianate of zinc.

The best way to give it is in pill form commencing with one-grain doses. As to how often it should be given and when, much depends upon the violence and frequency of the attacks, and what time during the twenty-four hours they generally occur. If they are frequent and severe it should be given in grain doses three times per day, and in extreme cases the dose may be increased to a grain and a half. If the convulsions only occur about once per month a one-grain pill night and morning, conjoined with a fruit and vegetable diet, may postpone them for a long time, or entirely prevent their occurrence.

In a great many cases the spasms come on in the night and never occur in the daytime. In dealing with this form of disease a one-grain pill given at bedtime sometimes postpones an attack for a year or two, even though no attention is given to the patient's diet.

Where the convulsions always occur at night, where the patient is under twenty years of age, and where the whole number of spasms do not exceed one or two hundred, the fruit and vegetable diet and valerianate of zinc at bedtime

will often effect a cure. The highest authorities agree that where any patient has had five hundred spasms, the epileptic habit is so thoroughly fixed upon him as to render any treatment, so far as effecting a cure is concerned, hopeless.

NEURALGIA.

THIS is a disease affecting the nervous system and is attended with sharp, darting pains along the course of sensory nerves.

Causes. — It may arise from heredity, malarial affections, exposures to wet and cold, from mental exertion, fright, intense anxiety, or from an injury to an important nerve. It is customary to name the disease according to the parts affected, as for example: When the neuralgic affection is confined to the face with sharp, darting pains either above or below the eyes, it is called *tic-douloureux* or facial neuralgia.

When similar pains of a paroxysmal character affect the back of the head and extend down the neck, it is called *cervico-occipital neuralgia*, and signifies neuralgia affecting the back of the head and neck.

Paroxysmal pains of a darting character, involving the neck, shoulder, arm, and hand, are called *cervico-brachial neuralgia*, which means neuralgia of the neck and arm.

When similar pains of a paroxysmal type dart along the fifth and sixth ribs or the intervening spaces on one side, the disease is called *dorso-intercostal neuralgia*, or, more commonly, *intercostal neuralgia*, which simply means, neuralgia between the ribs. This form of neuralgia is nearly always attended with a bright red eruption of the skin known as “shingles.”

When neuralgic pains shoot along the course of the sciatic nerve, causing severe pain in the muscles of the hip, it is called sciatica. This form is generally associated with or depending upon an attack of lumbago, or muscular rheumatism of the back.

The pain in sciatica is more intense and involves more important muscles than that of neuralgia of other parts of the body, and extends from the hip to the heel. The muscles of the hip, the inner part of the thigh, and ball of the leg are frequently all involved in a terrible paroxysm of pain at the same time.

Termination. — Neuralgia, including all the different forms, should end in complete and perfect recovery if properly treated.

Treatment. — Many years ago the author abandoned the plan of treatment given in the medical text-books which consisted, as it does now, of giving an opiate to relieve the violent pain of the paroxysm, and afterwards giving the necessary remedies to prevent recurrence of such paroxysms.

The best time to break up an attack of neuralgia, and to break it up so radically that it will never return, is during the paroxysm.

Why this is so is not so easy to tell, but the fact is established by treating a large number of cases both ways, that is by giving remedies when patients are practically in a state of perfect health, and giving the same remedies during the attack, in both cases with a view of curing the disease. As long as the author followed the old plan of treating cases between the paroxysms, he failed to prevent their recurrence. Since substituting a curative treatment during the paroxysm for one of temporary relief, his

efforts, with but few exceptions, have been crowned with perfect success. Instead of giving morphine or some form of opium to blunt the sensibility to pain, the proper thing is to give a remedy that increases the sensibility of the affected nerves and intensifies the pain for a limited time, knowing by experience that complete and permanent relief will follow. Such a remedy is the exact opposite of morphine in its action, and is strychnine, given in the convenient form of *ignatia* pills.

Before going into details regarding the treatment, it must be understood that all forms of neuralgia, excepting neuralgia of the heart, are treated the same way. As most people are familiar with sciatica and know something of the intense and prolonged suffering that it occasions, the treatment here given is for that disease. Suppose the pain is of the usual, sharp, lancinating kind, affecting the muscles of the hip and darting down the thigh and leg to the ankle, the pains being so great that the patient thinks only of something for immediate relief. In such a case, it seems cruel to give medicine to make him worse, and yet that is exactly the right thing to do. If he weighs 150 pounds, or from that to 175, give him a three-quarter-grain pill of the solid extract of *ignatia* and in six hours repeat the dose, only giving three pills in twenty-four hours. This dose is calculated not only to increase the pain, but to cause cramps of the affected muscles. Should it fail to do so by the time the third pill is given, a one-grain pill of the same drug must be substituted for the three-quarter-grain pill, and one given before each meal. The contractions of the muscles of the hip, thigh, and leg, and also the attending pain, may be very severe. Should the pain be too great to bear, a half grain of morphine

may be given at a single dose, as its effects will be neutralized to a great extent by the ignatia. After the spasm or cramp of the muscles subsides, a sore feeling of the flesh for a few days is about all that is left, and the sciatica rarely returns. The success of the treatment depends mainly upon the extent to which the drug is carried in producing intense pain and muscular spasm. If only slight cramp with but little increase of pain is excited, the treatment will do but little if any good. There is no danger whatever in the use of the drug as herein advised, and it is very probable that a three-quarter-grain pill will be sufficient, and that it will not be necessary to give more than three.

If a one-grain pill is given, the second dose if not the first, will most likely bring on the desired cramp and intensified pain.

The principle upon which the curative action of the remedy depends, can only be partially explained, and is probably as follows: During an attack the nerves concerned are congested or inflamed, and therefore intensely sensitive to the action of strychnine, which increases the congestion.

A state of numbness or partial insensibility of the muscles follows, during which blood ceases to be attracted to diseased parts, and recovery commences.

Why the attacks never return, it is hard to tell.

It is thought best to report a few of the very many cases in which ignatia has been permanently curative in sciatica and other forms of neuralgia when given during the paroxysms.

Case I. — Mr. Hersey, aged 60, had suffered for many years with violent attacks of sciatica, and in 1872, I was

called and found him in great agony. It was found that the attacks came on a dozen times per year, and were always fearfully distressing. I decided then and there to break them up forever, if possible, and gave him a one-grain ignatia pill before breakfast, and another before the noon meal. At one o'clock the violent contractions of the muscles began, the pain was terrible, and he was screaming as if he was being murdered. I gave him a half grain of morphine by the mouth, as I had no hypodermic with me. In a half hour the cramp in the muscles of the hip, thigh, and leg had almost ceased, and the pain was practically gone. Within two hours he was perfectly easy, and during the next twenty years of his life he never had another attack.

Case II. — Mrs. G. W. Willis, of Mankato, Minn., addressed a letter to me in Boston, in 1893, describing a neuralgic affection of the shoulder, arm, and hand, the form technically known as the cervico-brachial neuralgia. It had resisted all efforts to subdue it or even to favorably affect it, and had been torturing her for many weeks.

The ignatia pills in three-quarter grain doses three times per day increased the pain considerably and caused muscular contractions in the arm, shoulder, and hand, and, as directed, she left off the remedy at once. Complete and permanent recovery followed. In this case, the cramp or spasm of the muscles was not very severe. She has never had an attack since.

Case III. — William Whitehead, aged 35, had suffered with neuralgia of the back of the head and neck, the paroxysms occurring about twice per month and confining him to his room for a couple of days. He was put upon ignatia pills in doses of three-quarters of a grain before

each meal, and the treatment was begun during the earliest and severest part of the paroxysm. The first pill given caused some muscular spasm, and in an hour and a half after taking the second, violent cramps affecting the muscles of the back of the head and neck ensued, attended with terrible pain. The pain accompanying the cramps was finally so severe as to require a hypodermic injection of morphine, which gave complete relief within a half hour. In this case the paroxysmal attack which had usually lasted two days, was completely broken up in eight hours, and the habitual attacks that had been coming on every two weeks for years, never returned.

Comment. — There was some very unpleasant experience in this case, owing to the terrific pain occasioned by the drug which was probably given in doses unnecessarily large. It may be that a half-grain pill instead of three-quarters would have answered, but there were no bad effects from the use of large doses except during a few hours, and the final result was so completely satisfactory that there was but little reason for complaint on account of severe treatment.

HYSTERIA.

COMMON name: hysterics.

This is a functional derangement of the nervous system, characterized by more or less spasmodic action of the muscles, and seems to be associated with a morbid desire for sympathy, as the attacks almost always occur in the presence of other persons.

Causes. — The affection is confined almost entirely to females, and is frequent among old maids, girls, and women without children. It is often associated with the monthly

sickness, and also frequently occurs about the turn of life. It is probably always associated with functional derangement of the sexual organs, although those organs may seem to be in a state of health. It is doubtless aggravated by dyspepsia or anything calculated to disturb the nervous system.

Symptoms. — The symptoms of hysteria are so numerous and varied that those of a typical case are exceedingly hard to catalogue. The fact that the paroxysms, attended with sighing, crying, or boisterous laughter, almost always occur in the presence of other persons and usually those of dear friends, relatives, or lovers, suggests the idea that the underlying cause of the seizure may be a morbid craving for sympathy; and yet hysteria is truly a disease affecting the nervous system in such a way, that the absurd and meaningless demonstrations can neither be suppressed nor modified by the patient. There is laughter without mirth, moaning without distress, crying without grief, talking without saying anything, gestures that indicate nothing, threatened suffocation when there is no obstruction in the throat that is apparent. All these symptoms and sometimes a great many others generally precede the hysterical fit that is characterized by seeming unconsciousness, the patient usually being keenly aware of what is taking place. The paroxysm may be attended with violent struggles in which the patient has to be restrained to prevent injuring herself or others. There may be spasmodic contraction of the muscles affecting the features and extremities as if it were really an attack of epilepsy.

Finally after the family and friends have been terribly frightened, fearing that death was imminent, the paroxysm may end abruptly in a sweet, placid, bewitching smile, the

patient dropping into a quiet sleep. After all these violent symptoms have ended in quiet repose, a careful examination usually shows that the pulse and temperature are but little if any above natural.

Termination. — As far as life is concerned, hysteria is always favorable. In regard to perfect recovery it is much less so, as persons who have had one attack are liable to have others, regardless of treatment.

Treatment. — In the great majority of cases it is impossible to tell the cause of hysteria, and for this reason the treatment is to a great extent experimental. A great many cases are undoubtedly due to the immoderate use of tea or coffee, by which the nervous system is unduly excited, and sooner or later ends in a condition of partial exhaustion, which favors an outbreak of hysteria. Nervous exhaustion also causes dyspepsia, to which many of the hysterical symptoms are often due. Therefore in all hysterical cases attended with the excessive use of tea and coffee, these stimulants should be absolutely abandoned, as they are nerve exhausting, causing those who use them excessively to be intensely nervous. It is well to remember that hysteria is simply an exaggerated or extreme condition of nervousness, and, aside from that, is no disease at all. And further, that any habits of eating and drinking or living that have a tendency to use up and exhaust nervous energy, have an equal tendency to carry every female patient in the direction of hysteria, as the nervousness from drinking strong tea and coffee is "hysterics" on a small scale.

From the foregoing it is evident that the rational treatment of hysteria, with a view of preventing the paroxysms, is almost entirely hygienic, as there are no drugs that will

prevent hysterical paroxysms as long as their exciting causes exist. If the affection is associated with dyspepsia, that trouble must be met by giving a half-grain ignatia pill before each meal and continued for several months, but to permanently cure or greatly benefit any hysterical patient that persists in the immoderate use of tea, coffee, or other stimulants is a hopeless task. They should not use tea and coffee at all.

One of the most efficient remedies in quieting the nerves and subduing an obstinate case of hysteria is the following :—

Fluid extract of valerian, a half ounce,
Bromide potassium, a half ounce,
Water, three ounces.

Mix, shake, and give a teaspoonful, repeating the dose in six or eight hours if necessary. Patients usually drop into a quiet, restful sleep within an hour after taking the first dose.

When hysteria depends upon disease of the womb, as it sometimes does, that organ must receive proper attention so as to remove the exciting cause of the disease.

SUNSTROKE.

OTHER names: thermic fever; heat stroke; coup de soleil; heat exhaustion; insolation.

This is a condition in which the vital powers are overwhelmed with heat. It is not necessarily sunstroke, although this is the most common form of the affection, but may arise from heat of any kind.

Causes. — The causes are exposure to the effects of high temperature, whether it be from the direct rays of the sun

or from artificial heat such as workmen encounter in rolling mills, furnaces, and foundries.

Symptoms. — A heat stroke comes on rapidly with a feeling of great prostration, the face becomes pale, voice weak, pulse frequent and feeble, the patient sooner or later becoming unconscious. Occasionally the prostration is sudden, and without any warning symptoms the patient falls and is completely unconscious. In sunstroke the symptoms come on rapidly, sometimes preceded by a prodrome and at other times without any warning symptoms whatever. The patient becomes irrational and may have a violent fit of delirium or convulsions, or instead of the latter, the exact opposite may occur — paralysis. The surface is flushed with heat, the eyes are red, the breathing usually labored and puffing as in apoplexy. The pulse is quick and may be either full and strong or the opposite, small and weak. The fever often reaches the extreme limit. In such cases death usually occurs from suffocation or failure of the heart's action, or both.

Termination. — Regarding the danger of this disease everything depends on the violence of the attack. In sunstroke most patients die within a few hours.

Treatment. — In heat exhaustion it is best to put the patient in a horizontal position, and give good whiskey in half-tablespoonful doses in an equal amount of water every half hour. If unable to swallow, two or three times this amount may be thrown into the rectum, but in that case should be mixed with at least two parts of water.

In sunstroke the fever is intense, often reaching the extreme limit, and the speedy reduction of the temperature is of the utmost importance. Cold water applied without limit to the surface of the body and especially the head is,

perhaps, the best means by which to get rid of the bodily heat. The face should be inclined a little downwards so the water will not enter the nostrils nor the mouth, and a constant stream of water flowing all over the head and neck should be poured from a pitcher. Meanwhile the body should be thoroughly wet with a spray or shower bath, and evaporation favored by the use of fans or having the patient in a draught of air. Everything depends on getting rid of the heat as soon as possible.

NERVOUS EXHAUSTION.

OTHER names: nervous prostration; spinal irritation; neurasthenia.

This is an enfeebled state of the nervous system that reduces the physical and mental energy of an individual, rendering him less capable of dealing successfully with the affairs of life.

Causes.—The principal causes are excessive mental labor, financial embarrassments, extreme and long-continued anxiety from any cause, disappointments in love, excessive sexual indulgence, and the use of alcoholic stimulants and tea and coffee.

Symptoms.—When nervous prostration affects every organ of the body, it is properly termed general nervous debility. When it affects but one organ it is local or partial nervous debility. This is the case in dyspepsia, when the nerves presiding over the functions of digestion are exhausted by excessive eating or the use of improper food.

In nervous exhaustion there is an irritability of temper, the memory is more or less defective, the patient is unable to keep his mind fixed upon his occupation, forgets or

neglects business engagements, is a chronic "day dreamer," and usually afflicted with insomnia at night. In females, nervous prostration is generally attended with functional derangement of the sexual organs.

Termination. — This is usually favorable under proper management.

Treatment. — In dealing with nervous exhaustion, hygienic measures are of the utmost importance. To free the mind from the annoying cares of life and make the individual as cheerful and happy as possible, transcends any and all efforts that can be made with a drug treatment. In almost all cases of nervous debility, disorders of digestion seriously complicate the situation. The nervous exhaustion causes the dyspepsia, and the latter constantly tends to increase the nervous exhaustion. For this reason an effort must be made at once to improve the digestion, fill the veins and arteries with healthy blood, properly nourish, tone up, and stimulate the nerves, and in that way maintain a healthy and vigorous nutrition. The best remedy in such cases is the solid extract of *ignatia* in pill form; the dose ranging from a half to a full grain according to the size of the patient. Persons weighing from one hundred to one hundred and seventy-five pounds, should take a half-grain pill before each meal. Those weighing from one hundred and seventy-five to two hundred will need three-quarters of a grain, while all persons weighing over two hundred must take a full grain. In all cases one pill is taken before each meal, and never more than one. They do not act as a physic, but spend their entire force upon the nervous system. They should be continued as a general thing for several months. After the dyspepsia is overcome and a healthy color has returned to the cheeks,

the blood will properly stimulate the brain and nervous system, the latter will excite the organs of digestion to the proper performance of their functions, and further use of the ignatia will be unnecessary.

ST. VITUS'S DANCE.

OTHER names: chorea; insanity of the muscles.

This is a derangement of the nervous system, attended with irregular, jerking movements of the muscles.

Causes. — It is a disease of childhood and youth, and may be due to heredity, masturbation, or fright.

Symptoms. — The disease is gradual in its commencement, the muscles of the face and hands commencing to twitch about the same time. These symptoms may occur more or less every day, and then cease for a day or two, but finally becoming more pronounced so as to involve the muscles of the eyelids, the eyes, and those of the upper extremities. Last of all, the muscles of the lower extremities are affected.

Termination. — In most cases this is favorable.

Treatment. — As the disease is attended with a weakened condition of the nervous system, and consequent disorders of digestion, and an impoverished state of the blood, a general nervous tonic is called for with a view of giving general tone to nerve tissue, improving the powers of digestion, and filling the veins and arteries with healthy blood. Therefore, in children from two to eight years old, the eighth of a grain of the solid extract of ignatia should be given in pill form three times per day before the meals. At the same time the following may be given three times per day after meals: —

Fowler's solution, one drachm,
Water, four ounces.

Mix, and give a teaspoonful after each meal.

In children under two years, this remedy may cause swelling or puffing of the eyelids within six or eight weeks, or sooner. When this condition is observed, the drug should be discontinued for two weeks and then given as before. If the child is from eight to fifteen years old, it should have a quarter of a grain pill of the solid extract of *ignatia* before each meal, and three or four drops of Fowler's solution after each meal. Meanwhile, the diet should be nutritious and the child should be kept quiet.

SHINGLES.

OTHER names: intercostal neuralgia; herpes zoster; a girdle; zono.

This is an acute inflammation of the skin, upon which there is a cluster of pimples or vesicles, and is attended with severe neuralgic pains.

Causes.—The neuralgia and eruption are caused by inflammation of a nerve or nerves.

Symptoms.—It begins with neuralgia, the pains being sharp and darting, characteristic of that disease, and usually situated on one side of the chest. Soon after the neuralgic seizure, the eruption, which is of a bright red color, commences.

Termination.—In almost every part of the civilized world, the idea prevails that shingles, should the infection ever encircle the entire body, would prove fatal. There is nothing more foolish and groundless than this notion, as the termination is always favorable.

Treatment.—It is a self-limited disease, running its course in about two weeks, but is often attended with distressing pain, and should be broken up as soon as possible. For this purpose there is no better remedy than the following: Extract of ignatia in pill form, given three times a day, the dose ranging from one-half to a full grain. The pills should be sufficiently large to intensify the neuralgic pains, and should it also cause twitching of the muscles without severe cramp or muscular spasm, it is all the better. After the characteristic effects of the drug are obtained in this way, it is unnecessary to give it any longer, as the neuralgia almost always subsides as soon as the drug symptoms die out. In such cases the shingles dry up, and the patient is practically well in forty-eight hours. Give a three-quarter-grain pill to adults.

FEMALE DISEASES.

MENSTRUATION.

MENSTRUATION consists of a discharge of blood, once per month, from the sexual organs of the human female, during that period of her life in which she is capable of bearing children.

The discharge is commonly called the menses because it occurs once per month, as the word “mensis” means a month, and when a girl has her first menstrual sickness, it is hailed as an unmistakable sign that she has arrived at the period of life called puberty, or, in other words, womanhood. About this time her mammary glands, commonly called her breasts, show increased growth, she is widened and enlarged in the development of her hips, is somewhat more womanly in her manners, being unusually dignified

and reserved in the presence of boys. In this country, menstruation usually commences between the fourteenth and sixteenth years, and terminates between the forty-eighth and fifty-second years.

The time which most commonly elapses between the successive appearances of the so-called monthly discharge is about four weeks, although it is frequently shorter; and the duration of the flow is usually three or four days, but is liable to greater variations. The first appearance of the discharge, as a general thing, is preceded and accompanied by pain in the loins and general disturbance of the system, and in many women these symptoms invariably accompany the discharge.

As menstruation rarely occurs during pregnancy and lactation, the cessation of the menses is hailed as the first symptom that conception has taken place.

In the natural or primitive condition of the human race preceding the dawn of civilization, it is supposed that the menstrual function was unattended by pain. In that period of human development, there was much less difference between the size and physical strength of the male and female than at present; her limbs were untrammelled by skirts, her body was not dwarfed nor distorted by tight garments, her muscular system was strong and vigorous in development, the cavities of her body containing the various organs were not diminished in size, and she was a *natural*, and not an *artificial*, woman. Being entirely unrestrained by garments, she had the same opportunities for exercise and physical growth that the male enjoyed. She was much larger in her waist, her hips and pelvis were larger, affording greater room for the internal sexual organs, and these were correspondingly strong and large.

The general trend of civilization has been to a higher intellectual development, to the neglect of her physical growth and strength, and conjoined with this, there has existed for centuries a morbid and gradually increasing desire to beautify her person by deforming it. School-girls are hampered by clothing, cannot play at games requiring the free and perfect use of all their limbs and muscles, and in this way the mothers of our race are restrained and enfeebled, physically, so that the various functions of womanhood and motherhood are attended with more or less pain and inconvenience. Therefore menstruation, which is a natural physiological function and should be free from pain, is usually attended with suffering. That the restraining effect of modern styles in dress and their constant encroachments upon female anatomy, change the form from the *natural* to the *unnatural*, and are a continued menace to the happiness, comfort, and usefulness of woman, there can be no doubt. This question has been under discussion for many, many decades, and yet the evil continues. Reforms in dress are a thousand times more important to the women of this age and through them to humanity, generally, than the ballot, and yet they are justly entitled to the latter.

But the general condition of humanity is improving; the world is better this year than it was last; the relics of barbarism are becoming less conspicuous; superstition is dying out; women can speak in meeting with their heads uncovered; the once enthroned monster of the skies is becoming an indulgent and loving father; the superstition regarding the sacred form of females has disappeared; women have ceased to be the property of men; are no longer the cherished tools of kings and monarchs, with their faces veiled from the eyes of other men; are now, more than

formerly, the guardians of their own persons ; have unlimited sway in establishing and maintaining the various styles with reference to dress, and if they do not cast off that pet garment of ancient and jealous kings, that leg-hampering, speed-preventing, wage-reducing, exercise-restraining thing, — the skirt, — and don, instead, the bifurcated garment, it is their own fault. The idea of women adopting a male costume to the extent of getting rid of skirts, even though it gives them all the freedom of muscles and limbs that men enjoy, is at first horrible to think of, as we cannot endure the idea of seeing our wives or sweethearts thus clad. We have learned to love and admire women and girls in skirt garments, and for this reason it does not seem they can ever look so pretty in anything else ; but all prejudice, dislike, and opposition to male attire for the lower extremities of women would disappear in a year ; they would enjoy the same admiration of men that they do at present ; they could perform all the duties of life with much less inconvenience, could earn more money with less work, enjoy better health, gradually become stronger ; girls could romp, run, jump, and play without restraint ; physical growth would be favored instead of retarded ; we would have larger, stronger, and more perfectly developed women ; the pains and frailties of womanhood and maternity would be greatly diminished, and in a few generations the mothers would enjoy the strength and immunity from suffering that those of the savage races now enjoy, while their capacity for intellectual development would be commensurate with their increased physical strength. The multiplicity of skirts that are belted around the waists of women and girls, that impinge uncomfortably upon the abdominal organs, forcing them downward upon those of the pelvis,

that hamper the limbs, limit physical exercise, cause disorders of digestion and permanent derangement of the sexual organs, must sooner or later give place to sensible garments suspended from the shoulders, similar to those worn by the male sex.

MENORRHAGIA.

EXCESSIVE MENSTRUATION.

THIS is an affection in which the menstrual flow is changed into an absolute hemorrhage from the womb, and yet in some women it occurs as regularly as the monthly periods themselves, is attended with a discharge of large clots of blood, the expulsion of which requires bearing down efforts and pains similar to a miscarriage.

The hemorrhage in such cases may be due to many different causes, such as polypus of the womb, cancer, or malignant growth of some kind, but in the great majority of cases it is due to an idiosyncrasy, or personal peculiarity of the patient and is, in itself, unattended with danger. It is, however, to be greatly deplored for two reasons, namely: It is distressingly painful and annoying while it lasts. In the second place it drains the patient of so much blood that she is left in a weakened condition, her face being characterized by the pallor of childbirth.

Treatment. — If the patient is of a florid complexion, the veins and arteries seemingly full of healthy blood, and there is for this reason a natural tendency to hemorrhage, a meat diet should be almost abandoned for one of fruits and vegetables. This is especially necessary if she is habitually constipated. Whatever derangement of digestion and other functions of the body exist, should be

corrected by the proper treatment. If she is a subject of dyspepsia she should adopt the treatment advised in the chapter on atonic dyspepsia. If habitually constipated let her follow, in a thorough and radical manner, the treatment advised in the chapter on constipation. In order to arrest the hemorrhage when it occurs, and, therefore, prevent the formation of blood clots and the accompanying pains of such profuse menstruation, the following should be given as soon as the hemorrhage sets in:—

Fluid extract of black haw, one ounce,

Port wine, a half pint.

Mix, and give a tablespoonful every hour until the hemorrhage is arrested, then give the same dose every three or four hours until the time for the excessive flow has past.

This remedy is one of the very best in such cases and affords the most prompt and satisfactory relief without leaving an unfavorable drug effect upon the patient, and yet it is not always easy to tell the proper dose for any particular case nor how often it may be necessary to repeat such doses. This information must be gained by experience, as one lady may require much larger doses than another. As a general thing, however, if given as advised, every hour, two or three doses will arrest the hemorrhage. Every lady who is subject to profuse menstruation, characterized by great pain and the discharge of blood clots, should keep a bottle of this mixture in the house and commence taking it as soon as the hemorrhage begins.

In more desperate cases, where the hemorrhage is so great as to give but little time for the action of medicine, a full teaspoonful of the fluid extract of ergot may be given every fifteen or twenty minutes, until the hemorrhage ceases, or until three doses are given. In most cases,

however, the fluid extract of black haw is much to be preferred, as the use of ergot every month is liable to cause permanent injury to the blood-vessels.

AMENORRHŒA.

SUPPRESSION OF THE MENSES.

THIS is a condition due to one of many causes, or several combined, in which the regular monthly sickness fails to occur, or which, having commenced, is suddenly suppressed. It is frequently caused by a severe cold, or being caught in a rain-storm about the time the flow should commence or soon afterwards. In such cases great pain in the pelvic region, headache, thirst, fever, a full and rapid pulse may follow.

Treatment. — To treat amenorrhœa rationally with the hope of obtaining favorable and permanent results, everything depends upon the cause producing it and the way in which it affects the individual. If the menses are suppressed by cold or by getting wet, the prompt and thorough application of heat will afford the surest and quickest relief, and for this purpose there is nothing better than hot water as advised in the treatment of dysmenorrhœa. This should be followed up for several hours, keeping patient, meanwhile, somewhat uncomfortably warm in bed. If there is much fever, the following should be given as directed : —

Tincture of aconite root, one drachm,

Water, four ounces.

Mix, and give a teaspoonful every hour for four hours, after which give a dose every two hours. The menses are frequently suppressed or delayed by grief, fright, or undue

mental excitement. In such cases the trouble is temporary so far as the menses are concerned, and will disappear as soon as the equilibrium of the nervous system is restored. The treatment, if any, consists in quieting the mind. The failure of the menses to occur on time affords no occasion for alarm unless the health of the individual is unfavorably affected. One of the greatest misconceptions of parents and frequently of doctors also, is that physical derangements of young ladies are solely due to the suppression of menses, when actually the suppression in most cases is caused by the physical infirmities. There are certain diseases in which the menses are almost always suppressed, and one of the most serious and important of these is consumption. This is usually slow and insidious in its development, and attracts but little attention until it is discovered that the color has faded from the cheeks and the menses have failed to appear. The misguided doctor or parent is led to think the trouble is all in the sexual organs, and gives remedies to restore the menses. These are wasted efforts, as it is just as natural for the menses to be suppressed with consumption as it is for them to occur on time in health. Other debilitating diseases affect females in the same way, and the treatment should be directed to such diseases instead of the sexual organs. Suppression of the menses by disappointments in love is very serious, as in many cases it is the beginning of a fatal decline, but the trouble is in no way connected with the sexual organs, as it is wholly a mental condition. The derangement is primarily emotional and mental, leading to derangements of nutrition, vital depression, and consumption. The morbid condition of the mind must be overcome before the menses can be restored.

DYSMENORRHŒA.

PAINFUL MENSTRUATION.

DYSMENORRHŒA is the technical term applied to the pain that precedes or accompanies the menstrual discharge. Most women are more or less uncomfortable during the first day of their monthly sickness, the pain frequently preceding the flow. Where this discomfort is moderate it is not called dysmenorrhœa, or painful menstruation, but is considered natural. But in many cases the pain is severe, covering a period of two or three days, and confining the patient to her bed.

The causes of painful menstruation are numerous, the remote causes being almost wholly errors in dress, producing more or less physical deformity, including a meagre development of the sexual organs. It is obvious from the foregoing that the remote causes are, to some extent, hereditary, that mothers for many generations have suffered from the same kind of mistakes in dress that are diminishing the comfort and happiness of the present generation of women. When an anxious father wrote to Horace Greeley asking him the best time at which to commence the education of his boy, the old philosopher answered: "About one hundred years before he is born." The same kind of advice applies to dysmenorrhœa, and the treatment should be commenced several generations before the birth of the patient.

The exciting causes of painful menstruation are many, among which may be included inflammation of the ovaries, or the membranous lining of the womb, or mechanical obstruction preventing or retarding the flow of the menstrual fluid from the womb.

Symptoms. — Where inflammation of the ovaries exists there is a heavy, aching pain in the pelvis before and during the menstrual discharge, with soreness of the breasts and sometimes swelling also. The time at which the pain sets in, with reference to the commencement of the discharge, affords information that is somewhat reliable regarding the cause. For example: where there is inflammation of the ovaries, the pain precedes the flow and is not relieved when the latter is established.

When the suffering is due to an obstruction in the mouth of the womb, the pain precedes the flow and is greatly if not wholly relieved by it. Where inflammation of the mucous lining of the womb causes the suffering, the pain commences with the flow and is gradually increased as the accumulated fluid with more or less clots impinges upon the inflamed membrane. In such cases, however, the freer the discharge the less will be the suffering from pressure upon the inflamed surfaces. This form is sometimes called membranous dysmenorrhœa, as the discharge is frequently accompanied with the passage of detached fragments of membrane.

Treatment. — Where there is heavy, aching pain in the pelvis before and during the discharge, and attended with soreness of the breasts, it indicates an inflammatory condition of the ovaries, and the application of heat in the form of a rubber bag filled with hot water and placed over the lower part of the abdomen, keeping a thick, dry towel between the bag and the skin to prevent burning the patient, will usually afford great relief. The heat thus applied is valuable in relieving the inflammation of the ovaries and effecting a relaxed condition of the mouth of the womb to facilitate the flow. If, however, a case of

this kind is so severe that this treatment does not afford the desired relief, from twelve to fifteen grains of anti-pyrine may be given, and the dose repeated in two hours if necessary. Alcoholic stimulants of all kinds should be avoided in dysmenorrhœa, and especially so in the ovarian form. The treatment of the patient between the menstrual periods is of great importance when the painful menstruation depends upon an inflammatory condition of the ovaries. The use of hot water as a vaginal douche three or four times per week, if properly managed, ought to accomplish a great deal in unloading the engorged vessels of the ovaries and rendering the succeeding monthly flow much less painful.

The best way to administer the treatment is by means of a fountain syringe. It is best for the patient to be in a bath-tub with her hips resting upon some soft cushion several inches high. The water should be as hot as it can be borne without pain, and the flow continued for ten minutes, the waste water being allowed to escape from the bottom of the tub.

When the pain precedes the flow and is always relieved by it, it is evident that the suffering is caused by a rigid condition of the mouth of the womb that prevents or retards the flow. Heat in some form is the best means to secure a prompt relaxation of the womb, and get rid of the accumulated fluid and the pains also by a free discharge. The application of hot water by the rubber bag, as mentioned above, will afford prompt relief.

When pain commences with the flow and gradually increases, it indicates inflammation of the mucous lining of the womb, and every effort should be made to facilitate the flow and prevent undue pressure upon the inflamed

surfaces. Heat is usually the best means to secure this end also, and the rubber bag filled with hot water can be used to advantage. Bags of hot salt, or a jug filled with hot water and securely corked, will afford convenient means of supplying the heat. This form also may be greatly relieved by irrigating the vagina with hot water three or four times per week between the monthly periods.

In dysmenorrhœa, of whatever form, disorders of digestion should be corrected as soon as possible, and where constipation exists, a meat and mixed diet should be abandoned for one of fruits and vegetables. An abundance of fruits, of which apples, oranges, lemons, and peaches are the best, should be eaten every day until the bowels move about once per day. The stools should be soft and easy so as to avoid the necessity of straining, as such efforts do great harm by causing congestion of the internal sexual organs and causing or increasing painful menstruation. Where the affection is due to constipation, and it very often is, the fruit diet, followed for all it is worth, will effect a cure.

In such cases everything depends on the amount of fruit eaten, and the regularity with which the fruit-diet treatment is followed up. Some patients will eat an apple once or twice per day, or an orange at bedtime, and if their constipation is not promptly relieved will become discouraged and give up the use of fruit. Eating fruit in such limited quantities will do no good, but if four or five raw apples are eaten in twenty-four hours, and fried or stewed apples are eaten at one or two meals per day, or, in place of apples any other fruits that may be desired, excepting raspberries and blackberries, the fruit acid will soon have a favorable effect upon the bowels, and a free and

easy movement once per day may be hoped for. Fruits do not act upon the bowels as a physic, and therefore it does not become necessary to increase the amount. There is one matter of caution regarding the treatment of dysmenorrhœa, that is of the utmost importance. It is this: Never take a physic of any kind, as physicking in any way has an absolute tendency to cause congestion of the pelvic organs. Wherever patients have dyspepsia, they should carefully follow the treatment given in the chapter of this book devoted to atonic dyspepsia.

LEUCORRHŒA.

"THE WHITES."

THIS is a disease attended with more or less profuse discharge of white, yellowish, or greenish mucus from the vagina, resulting from acute or chronic inflammation of the vaginal mucous membrane.

As inflammation or irritation of the mucous lining of the vagina is the cause of leucorrhœa, it is very evident that the exciting causes of the disease consist of any influence, mechanical, sexual, or otherwise, that is calculated to excite, irritate or inflame the vaginal wall. Therefore, leucorrhœa is caused by displacement of the womb downwards, in which the tendency is to turn the vagina wrong side out and chafe and irritate the two opposing surfaces. As all mucous membranes when irritated, secrete mucus, a flow of watery mucus necessarily follows such displacements of the womb. Then again, if the womb is tipped back against the rectum, called retroversion, the mouth of the organ is directed toward the bladder, and impinges uncomfortably upon the front wall of the vagina, producing irri-

tation and consequently leucorrhœa. When the womb is tipped forward, the mouth is directed backward toward the rectum and irritates the back part of the vagina, causing a flow of watery mucus. The most frequent and serious of all the causes of leucorrhœa are probably those of womb displacement, and any attempt to cure the affection until these mal positions are corrected, can do but little, if any, good.

One of the most frequent and provoking causes of leucorrhœa, is excessive sexual indulgence. The excitement of sexual intercourse necessarily, naturally, and properly causes temporary congestion of the internal sexual organs, including the mucous membrane of the vagina. This is a physiological action and harmless if not carried to excess, but too frequent sexual indulgence gradually produces a chronic inflammatory condition called vaginitis, in which every part of the inflamed mucous membrane becomes active in the secretion of a watery mucus and sometimes of pus also. Another cause of leucorrhœa is the retention within the vaginal cavity of blood clots after profuse menstruation.

Treatment. — As the form of womb displacement most conducive to leucorrhœa is downward, the remedy is easy and simple if commenced in time, and consists in the insertion of a soft rubber ring, the opening in the centre being large enough for the mouth of the womb. This ring is hollow, and integral with it is attached a rubber tube about eighteen inches long, for inflating the ring when it is properly introduced. To place it in the vagina in the correct position, it is covered with vaseline and pushed as far as possible with the index finger. Then the small point of a common bulb syringe is forced into the end of

the rubber tube. When the bulb is thoroughly compressed twice, the ring will be considerably inflated. The index finger, properly oiled, may now be used to further adjust the ring so that the mouth of the womb strikes the open centre. By compressing the bulb once more the ring is fully inflated, extending itself in every direction and forcing the womb upwards. Sometimes it is not necessary, and this is especially true in women who have not borne children, to compress the bulb more than twice, as that amount of inflation is often sufficient to correct the displacement. If when the patient gets up and commences to walk round, the distended ring causes pain, it is an evidence that the inflation is too great. If, on the other hand, there is no pain at all, and a constant tendency of the ring to be discharged from the vagina, the inflation is not sufficient, and the bulb should be compressed three times instead of twice. After the ring is properly blown up, the rubber tube is to be firmly tied with a piece of cotton twine of considerable size. It should be tied in three knots. When necessary to remove the ring, the knots may be untied, or the tube clipped with scissors just above the cord. This form of uterine support is almost wholly free from irritation, and almost any woman can properly introduce it.

In leucorrhœa depending upon excessive sexual indulgence, intercourse should be wholly abandoned until the vaginal canal recovers from the irritable or inflamed condition causing the discharge. Meanwhile, irrigating the vagina two or three times per day with warm water and using an injection of sulphate of zinc after each cleansing, will hasten recovery. A teaspoonful of the zinc will be enough for a quart of water. It should be injected with a

hard rubber female syringe holding about one ounce. Another very valuable remedy, and in many cases much better than the zinc, is the non alcoholic extract of *hydrastis canadensis* mixed with ten parts of water. This should be injected night and morning. Any preparation injected for the cure of leucorrhœa should not be sufficiently strong to cause much if any pain, and when sulphate of zinc is used, if it causes much smarting, more water must be added to the solution.

DISPLACEMENTS OF THE WOMB.

There are five displacements of the womb. First, anteversion, in which the fundus or top of the womb is thrown forward against the bladder, greatly diminishing its capacity to hold urine, in consequence of which the patient has to pass her water much oftener than usual, and in bad cases every fifteen or twenty minutes. At the same time the mouth of the womb presses against the rectum, often causing constipation. Second, retroversion, in which the fundus or top of the womb is thrown backwards against the rectum, causing, if during pregnancy, terrible obstruction of the bowels. Meanwhile the mouth of the womb is pointed towards the front of the pelvis, impinging so firmly upon the neck of the bladder that the patient is frequently unable to pass her water. In such cases the direction of the urethra is very much changed, and a catheter that is considerably curved must be substituted for the one commonly used. Third, ante flexion, in which the womb is bent forward so the fundus or top presses upon the bladder, while the mouth is in its normal position or nearly so. The symptoms of this form of displacement are much the same

as those of anteversion, so far as the effect upon the bladder is concerned, as it is compressed and diminished in its capacity to hold water, frequent urination being necessary. It does not, however, obstruct the bowels. Fourth, retroflexion, in which the fundus or top of the womb is bent backward against the rectum, frequently causing obstruction of the bowels, while the mouth of the organ remains in its natural position or practically so. Fifth, falling of the womb, in which the organ is forced downward in the pelvis. This may be slight, causing but little inconvenience, or it may be great, in which there is almost complete prolapse or protuding of the womb. The symptoms of this form of displacement are backache, pains in the lower part of the abdomen, frequently extending down the thighs, a sense of heaviness or bearing down in the pelvis, and usually a frequent desire to pass water.

Treatment. — In all these displacements it is much better, if possible, for the patient to lie in bed until the womb is returned to its natural position. In retroversion that occurs mostly during pregnancy, obstructing the bowels and also frequently causing abortion, a good physician should be called at once to correct the position of the womb by putting patient on her knees and breast, and inserting one or two well oiled fingers in the rectum and pushing firmly against the womb. The other mal positions of the womb will generally correct themselves by the patient lying in bed a couple of weeks, but in case of prolapse, where the displacement is altogether downward, the soft rubber ring, as advised for such displacements in the treatment of leucorrhœa, may be used, in which case it is usually unnecessary for the patient to lie in bed. The reader is requested to turn to the chapter on leucorrhœa, and carefully

study the soft rubber ring and the manner of introducing and inflating it.

Whenever a woman is seized with a very frequent desire to pass her water, and this condition continues for any length of time, it is very safe for her to conclude that she has womb displacement of some kind. In the large majority of cases the position of the womb can be corrected by the patient taking to her bed for a few days, provided she does so as soon as the troublesome symptoms make their appearance. If this is not convenient the soft rubber ring or pessary, if properly inserted and sufficiently inflated, will raise the womb off of the bladder so as to cause, in most cases, immediate relief. In cases of ante flexion, where the top of the womb is bent forward against the bladder, there is frequently more or less displacement downward, and the use of the soft rubber ring will correct the trouble. It is well to remember that all these displacements have a natural tendency to irritate the vaginal canal and cause leucorrhœa, and whenever this flow commences, whether associated with bladder troubles or not, displacement of the womb should be suspected.

PREGNANCY.

PREGNANCY in the human family, when of the normal or natural character, signifies a state of the female in whose womb there is a germ, or egg that has been fertilized by the male germ, and which gradually becomes developed within the cavity of the womb. When the ovum is impregnated or fertilized by the male semen in the uterus, a local, vital action is set up by which it attaches itself to the surface of the mucous membrane lining the womb, and

obtains from it indirectly the nourishment necessary for its gradual growth during the ordinary term of pregnancy. The duration of pregnancy, however, may be protracted to three hundred days or upwards, and ends with the birth of one or more children. Pregnancy is commonly limited to one child, but sometimes there are two or three, and in rare instances four or five.

SIGNS OF PREGNANCY.

The first symptom of pregnancy, and the one hailed by almost all married women as the most important, is suppression of the menses. The function of menstruation rarely exists during the period of pregnancy. Sometimes, however, the menstrual flow occurs once after conception takes place, but in such cases it is generally slight and limited in duration. When it thus occurs it is only a short time after conception has taken place. The suppression of the menses, however, as a sign of pregnancy, is so reliable that the date fixed for the probable birth of the child is two hundred and seventy-five days after the last day of the last menstruation. When a menstruation in a married woman is limited both in quantity and duration, and this too in one who has always been regular as to time, amount, and duration of the flow, it is a very strong evidence that conception has taken place. As it may have occurred several days previous to the flow, the duration of pregnancy when reckoned from the last menstrual flow, must necessarily be shortened.

The menses are not always suppressed during pregnancy, but the cases in which they are not, are exceedingly rare.

The value of menstrual suppression as a sign of preg-

nancy is modified by many conditions. If the individual is very irregular in this respect, occasionally running over her time from a few days to several weeks, it is almost valueless as a symptom. If on the other hand she has always been prompt and regular, sudden suppression is almost a positive sign of pregnancy. The state of the mind sometimes exercises a demoralizing effect upon the nervous system, and in that way delays the commencement of the flow. This may occur with young married women who are very averse to raising children, and consequently in mortal dread of becoming pregnant. It may exercise a still greater influence upon unmarried women who have rendered themselves liable to become pregnant. In either case the influence is equivalent to a severe fright and may delay the menstrual flow for several days.

Another symptom of pregnancy which is of great importance, is nausea and vomiting, which is commonly called "morning sickness." This symptom is familiar to most married women. The sickness usually comes on soon after rising from bed in the morning. Like the sickness from taking morphine, it is provoked by the erect posture. It sometimes commences within a day or two after conception, but more commonly is deferred to the third or fourth week. It usually ends during the fourth month. It is sometimes mild, causing but very little inconvenience, and at other times so severe as to threaten the life of the patient. In extreme cases it is necessary to bring about premature delivery to save the life of the mother. Associated with the morning sickness or existing independently of it, are frequently other disorders of the stomach, such as acidity, heartburn, flatulence, and sour eructations.

Salivation often accompanies the sickness of the stomach

in severe cases. It may also occur in the form of drivelling saliva when there is no morning sickness at all.

Facial neuralgia and toothache are liable to characterize the state of pregnancy during the early weeks. This tendency seems to run in families. Sometimes all the girls in a family are affected in this way as soon as they get married and commence raising children. Where heredity is a strong predisposing cause to toothache and neuralgia during pregnancy, the occurrence of those affections may be regarded as almost positive evidence of the pregnant condition.

The mammary glands or breasts commence a gradual enlargement soon after conception occurs, and about the same time there are often darting pains in the region of the nipple. Sometimes, however, it is only an itching or a burning. The nipples are also enlarged and surrounded by a dark ring called the areola, which is especially dark in brunettes.

The bladder affords another important symptom of pregnancy during the first month on account of pressure it receives from the womb, being diminished in its capacity to hold urine, and rendering frequent urination necessary. This in connection with other signs of pregnancy is a very convincing symptom. During the second month there is a natural anteversion or tipping of the womb forward upon the bladder, further lessening its capacity to hold water, and increasing the frequency of urination. Early in the fourth month the pressure upon the bladder is relieved by the womb rising out of the pelvis into the cavity of the abdomen.

Quickening is the symptom occasioned by decided movements of the child, and commences about the middle of

pregnancy. Where conception takes place during lactation, and before menstruation is established after the previous pregnancy, there is no reliable means for determining the commencement of pregnancy. In such cases quickening, which commences about the middle of utero-gestation, affords the only information regarding the time at which the child will probably be born. Therefore, if the time of birth is set four and a half months after the first appearance of quickening, the calculation is liable to be correct within one or two weeks.

MANAGEMENT OF PREGNANCY.

Unfortunately for mankind in general and especially for the mothers of our race, the first pregnancies occur at a time when the ignorance of both husband and wife, regarding the care and necessities of the pregnant state, is most profound. For this reason the young husband, utterly unaware of an abnormal or nervous condition that may exist, thoughtlessly neglects his wife, or fails to be responsive to her cravings for love and tenderness. This may lead to desperate despondency, or to the development of an excitable and intensely irritable state of the mind. When to her morbidly sensitive, nervous, and mental state, are added disorders of digestion, morning sickness, constipation of the bowels, sour stomach, and an uncontrollable desire for articles of diet least suited to her condition, it is apparent that pregnancy, the most important period in the life of a woman, requires the exercise of all the intelligence, care, patience, love, and forbearance possessed by both husband and wife. Granting that the foregoing is true, this question naturally arises: In what does the

HYGIENE OF PREGNANCY

mainly consist, or, in other words, what is the best management of pregnancy? For her own sake and that of her offspring as well, every pregnant woman should be made as comfortable, cheerful, and happy as the circumstances of her husband, and her general environments will permit. The unfavorable business and pecuniary affairs of the family should never reach her mind. She should be carefully shielded from everything that is mentally depressing or annoying. If inclined to melancholy, she should not be left alone. Correcting disorders of digestion, and providing her with the companionship of pleasant, congenial people, may overcome all despondencies.

She should be encouraged to indulge freely in the walks, talks, and general pleasantries of life, including social games. If inclined to literature in any form, her taste in that direction should be encouraged, as whatever is mentally satisfying and pleasing is, on general principles, calculated to benefit her and her unborn child. If she wishes to do housework, it is much better for her to be so employed than to sit with folded hands, and muse pensively upon her prospects of motherhood.

EFFECTS OF THE MOTHER'S MIND UPON
HER UNBORN CHILD.

It is well known that disgusting or frightful scenes that violently affect the mind of the pregnant female are liable to exert a morbid influence upon the unborn child, so as to dwarf and deform its physical and mental growth.

Thousands of cases are upon record showing that idiocy, deformities, and human monstrosities have been traced to impressions made upon the minds of mothers before giving birth to children. How emotional impressions can affect the mind, the facial expression, and physical contour of a child that has never seen the light of day, is hard to tell. Interspersed with the matter of this material world is a realm of mysterious, unknown, and perhaps unknowable, forces. The matter is objective and tangible, while the forces are, for the most part, but dimly sensed.

There are millions of sights that we cannot see; millions of sounds that we cannot hear; millions of forces that we cannot feel; millions of tastes to which our natural organs are insensible; millions of perfumes reaching us upon the wings of the viewless air, that we cannot smell; there are millions of life germs spreading diseases from ocean to ocean, that only the most powerful microscope can reveal; and there are millions of maternal influences — weird, mysterious, and inconceivably delicate — connected with the impregnation of the human germ and its lodgement and growth in the womb, that we cannot understand.

The writer knows that he once lived in a dark, narrow chamber, the womb, where he was peculiarly nourished and slightly conscious, and believes that the mind and emotions of a loving mother moulded his plastic, prenatal brain and organism so as to endow him at birth with the capacity for physical and intellectual development that has mainly determined his destiny in life. How this was done, is at best a matter of conjecture.

When a wound is made in the flesh, there is a rush of blood to that locality, carrying fibrinous lymph, the necessary material for healing the wound, and an active, adhe-

sive inflammation is set up. If the injury is extensive, the inflammation will be correspondingly so, and the demand for fibrine is liable to be greater than the normal blood can supply. Nature, as if fully aware of the deficiency of healing material in the blood, creates an extra amount of fibrine with which every ounce of blood is enriched, and in that way the wound is reënforced with fibrinous lymph or repairing material, and the healing process hastened.

When a woman in the early months of pregnancy takes up a difficult line of study, such as mathematics, for example, and pursues it every day for months, there is an increased flow of blood to the brain to supply the waste caused by such long-continued mental taxation. As the mental labor has a tendency to use up certain chemical constituents of the blood, is it not logical to suppose that nature will recognize the draught made upon the blood in this way, and enrich it with an abundance of suitable material to supply the waste in the brain?

It is obvious, if the blood is made excessively nutritious to supply the waste in the brain tissue occasioned by severe mental exercise, that it is in the best possible condition to contribute to brain growth.

As the mother and her unborn infant are nourished by the same blood, it seems that the brain growth of the child in the womb must be to a great extent commensurate with the mental exercise of the mother.

If she should apply herself vigorously to the study of music, there would be an increased flow of blood to her head to supply the waste of brain substance, but such waste would not be the same as that caused by mathematical studies, and conservative nature would add to the nutritive qualities of the blood an abundance of ele-

ments needed to meet the draught made upon it by the study of music, only.

This blood would nourish the unborn child, and therefore contribute to the development of the same organs that had been exercised by the mother.

If true that certain mental pursuits cause the brain to draw from the blood certain chemical properties, it is also true that nature must meet the demand made upon the blood by increasing the amount of the much-needed elements, and therefore it seems possible for a mother to bestow upon her child a superior mental capacity by the manner in which she employs her mind and body during the nine months preceding its birth.

Evolution is the ruling principle, and highest natural power of the universe. In all the countless worlds that are teeming with living beings, the order of development is doubtless from the lower to higher forms of life. This is natural. Man is the dominating intelligence of this planet, as there is no other being that approaches him in intellectual capacity. He has conquered everything that breathes or inhabits the deep, and made the whole moving world of life subservient to his imperious will. After fighting ferocious beasts for thousands of centuries, and threading his way through the bewildering mazes of the past, he has finally made our little world a suitable dwelling-place for refined, intelligent people.

But in the realm of the unseen, unheard, unfelt, and unknown, he has a thousand worlds, as it were, yet to conquer. As he has but recently attained a state of mental development, rendering him capable of unfolding and utilizing a few of the possible millions of natural forces, it is reasonable to infer that he is yet in the childhood of his intellectual growth.

If this is true, the most important question of coming centuries is the evolution of mankind. From the infancy of the human race, man has been groping his way upward in search of intellectual light, and it is believed that his greatest blunder is, and ever has been, his failure to understand the main laws and conditions that affect, for good or ill, his mental growth.

Experience has taught that the kindergarten method of teaching young children — a method in which the mental unfoldment of pupils depends mainly upon object lessons — strengthens both body and mind, renders children exceedingly precocious, and early in life lays a broad and solid foundation for the more difficult studies of schools and colleges. The reasons are obvious. The little ones are put under suitable training when the brain is as soft and pliable as putty, the best of lessons are taught, and every child is carefully shielded from bad influences.

A child is probably a thousand times more susceptible to good or bad impressions during its earliest development in the womb than it is after becoming a kindergarten pupil, and experience and statistics almost warrant the opinion that the womb of every pregnant woman is practically a miniature kindergarten in which the mother's object lessons are impressed upon the mind of the unborn.

Granting that this is true, we are compelled to admit the existence of a multiplicity of conditions connected with the subtle forces and functions of maternity that we can neither explain nor fully understand. Oh, what a library we should need in which to record the things of this world that no one knows! For every mystery that science has solved, she has discovered a hundred new ones. She has found a few precious and glittering gems along the surf-

beaten shore, but the great ocean of truth that she surveys with her tireless and wistful eyes, is unexplored.

The objective and tangible forces of nature, such as steam, fire, wind, and wave, we understand and can usually avoid, but unfortunately the subjective, intangible, and inconceivably fine forces are the most powerful in their effects, for weal or woe, upon humanity.

It is now generally admitted by the highest medical authorities that structural alterations of the growing child in the womb may be caused by unfavorable mental influences upon the mother, and that human monstrosities generally occur in this way. Physiologists agree, and observations abundantly prove, that the emotions of the mother affect the physical development, bodily form, and facial expression of her child. They also agree that mental growth may be arrested or retarded in a similar way, causing idiocy or an enfeebled mental condition. For these reasons the best authors, in considering the management of pregnancy, advise every patient to be carefully protected from frights, physical shocks, and all sudden news of an unpleasant nature.

It is pleasant to know that these ideas that were instilled into the minds of young people by the intelligent mothers of thirty or forty years ago—ideas that were stigmatized by the doctors of those days as “old women’s whims”—have been recognized during the closing years of this most progressive and eventful century as an important part of the scientific literature of medicine.

The sprout of an acorn in coming up through a soft and yielding soil, is not swerved from a direct course, and therefore appears above the surface as a straight and perfect scion. If not injured by accident, it will become the

monarch of the forest, and after withstanding the storms of a thousand winters will be as straight as an arrow. But if, in coming out of the ground, it is bent in its tender and delicate fibres by a stone or unyielding clod of earth, it appears above ground more or less crooked and deformed, and can never make a perfect tree.

The acorn is an impregnated vegetable germ. The earth in which it is planted and to which it firmly attaches itself, is the womb. The length of time that it is planted before making its appearance, is its period of gestation or growth in the womb. This may be from two to four weeks, according to the amount of moisture, character of the soil, and other conditions, and yet in this short time the fate of the majestic oak, as regards shape and beauty, is determined. If two or three weeks of unfavorable conditions will dwarf, deform, and ruin a tree that might otherwise live and grow for a thousand years or more, the importance of the period from conception to the birth of a child in determining its destiny, is hard to overestimate.

If a woman is kept in a state of mental irritation by a drunken or otherwise obnoxious and worthless husband during pregnancy, or if vexed and tormented in other ways, her poor child is no more to blame for being bad than a tree is to blame for being crooked.

Oh, what a sacred temple is the maternal womb in which are nourished and developed the mind, body, and spirit of a human being! What infinite possibilities await the pliable, receptive mind of the infant whose mother is favored with suitable environments during the nine months previous to its birth!

Every industry, every enterprise, every school and col-

lege, and everything else in this world that approaches the goal of perfect success, must be established and conducted upon settled and definite principles. These are facts that the leaders of industry, science, literature, and art fully recognize. The telescope thrills us with the grandeur of a hundred million suns; the artist's pencil gives body and soul to color, light, and shade; the magnet conducts us safely across the bosom of the deep to the islands of joy and rest; and that subtle, imponderable force—electricity—brings us news from every country under the sun. Why? Simply because the principle and power of the telescope have been studied and practically mastered; painting is taught in well established schools of art where all the colors, delicate lines, shades, and expressions of the subject are carefully worked out; navigation has become a fixed and definite science; and electricity is governed by laws that are thoroughly understood. But unfortunately for man—the dominating intelligence of the globe—the laws relating to human reproduction, to the natural, creative forces through which the world has been peopled, are yet shrouded in mystery.

When the effects of the mother's mind and body upon the unborn are properly studied, the world will begin to realize that the best time to commence the education of a child is nine months before it is born. Then its intellectual growth—the growth upon which its taste, mental capacity, and success in life largely depend—will begin to receive the attention that the cause of human happiness and progress demands. Then the management of pregnancy will be reduced to a thorough system, as everything that is successful must be. Under this régime, parents will have some idea of the inclinations and capabilities

of their children, and will not compel them to take up lines of study for which they have no taste.

Then the question of blooded people will receive quite as much attention as that of blooded horses, blooded cattle, or blooded dogs.

When a boy keenly enjoys mathematics or anything else, it is because he has a natural ability to succeed and be equal, if not superior, to those of his class. A solitary half hinge is one of the most worthless things on earth, and therefore conservative nature never makes one half without making the other. For the same reason she does not create in any boy a taste for a certain line of study or work without endowing him with a capacity to succeed, and in almost all cases success depends upon his fondness for his work, whatever it may be.

The best things of this world have been slow in their development, because man has been slow in his own mental unfoldment. A few centuries ago, muscle was considered the Archimedes screw through which to move the world. Then a man never was considered a hero until he had measured his strength with some mortal foe and conquered. It was then that women—even pregnant women—enjoyed feasts of blood, and exultingly clapped their hands, like Mrs. Fitzsimmons, when their favorite vanquished his enemy in the arena of mortal strife.

Then, naturally enough, the world was filled with bullies, thugs, and face-beaters. Then physical conflict was an essential part of the pabulum upon which the mothers of humanity lived and flourished, and men took to fighting naturally because the minds of their mothers dwelt upon that subject previous to their birth.

That was a fighting age. Men, women, and children

were in constant danger of being destroyed by wild beasts, and the necessities of the times made fighters of every one. Husbands and wives fought each other, their sons and daughters fought among themselves, and young men frequently courted their sweethearts with a club. Then it was only the strong in bones and muscles that were considered fit to survive. Men like Corbett and John L. Sullivan were the idols of those days and fairly represented the ideas of the people regarding the "survival of the fittest." But over fifty years ago the calcium light of genius entered the dark places of earth with a Yankee invention that thoroughly discouraged the big-fisted manglers of human anatomy.

This established a physical equality among men, so far as fighting was concerned, and since that time, brain, instead of muscle, has been at a premium.

The inventor's name was Colt, and although never praised as a benefactor to posterity, his death-dealing revolver was a world-civilizer, and did what the schools, courts, and churches could not do—broke up fighting among men.

This showed the superiority of mind to brute force, and turned the admiration of the world from physical strength to genius.

When it was found that a man, however strong he might be, could not become famous with his fists in the face of a six-shooter, parents ceased in their efforts to raise bullies, because the world had no use for them.

Women became less inclined, gradually, to admire men in consequence of their great physical achievements, and turned their thoughts, tastes, and affections in the direction of mental refinement and superiority.

The invention of the revolver was the unfoldment of a thought that has placed the world upon a favorable basis for an intellectual development that will go on forever.

The correct principles of evolution—of human development—consist in producing good people with brilliant minds, by a logical system of breeding, just as fine, high-bred animals are produced.

However refining and beneficent religious teachings may be, they cannot make honest, reliable people out of persons who are naturally thieves. To be “born again” may improve those who are brought into the world under conditions that compel them to be impure in their thoughts and more or less depraved and dishonest in their dealings and conduct with the world, but it is a thousand times better to have them born right the first time, and then the second birth, about which so much has been said, will be unnecessary.

MORNING SICKNESS.

ONE of the most obstinate and annoying complications of pregnancy is the sickness that often comes on every morning, immediately after rising from bed, or sometimes just after breakfast. Sometimes the sickness is mild in character, only occurring once in twenty-four hours, and that soon after getting out of bed in the morning. In other cases the vomiting occurs only after the morning meal, the breakfast usually being thrown up. Occasionally the sickness of pregnancy comes on within a few days after conception, but as a general thing it does not commence until the third or fourth week.

There is every degree of morning sickness as regards severity. In some cases all food, of whatever character,

is thrown up as soon as swallowed. In such cases the smell of food may cause deathly sickness. The nausea of pregnancy is very much like seasickness, and is also like the sickness caused by taking a full dose of morphine, the vomiting in the three conditions being hastened by the erect posture, and due mainly to similar causes, that is, to complete arrest or derangement of digestion.

Morning sickness has been considered from time immemorial a sympathetic disorder, in which the stomach sympathizes with the congested womb. The writer is very much inclined to the opinion that this theory is only partially true, as he has found that the sickness yields promptly to a remedy that he has found to be a specific in atonic dyspepsia. As the treatment that almost always cures atonic dyspepsia breaks up the sickness from pregnancy so promptly and permanently that it proves to be a specific in such cases, it affords strong grounds for the opinion that the "morning sickness" is mainly, if not wholly, due to a form of dyspepsia peculiar to the pregnant state. In pregnancy there is a foolish and morbid craving for articles of food that are exceedingly hard to digest and therefore injurious. The same tendency manifests itself in many dyspeptics, showing that the unnatural appetites in both cases are probably due to similar causes, and instead of catering to such diseased tastes, it is far better to correct the conditions of the stomach, bowels, and the nervous system upon which they depend.

Treatment. — There are three very important things to consider with reference to treatment. First. Give her the kind of food that is nourishing and most easily digested. Second. Until her sickness is overcome she should take her meals and medicine while lying in bed with her head

and shoulders slightly elevated. Third. The drug that is calculated to stimulate digestion and in that way stop sickness, should be given a half hour before eating, and but little fluid of any kind taken until meal-time. The following is the remedy for a lady weighing from one hundred to one hundred and seventy-five pounds: Give a half-grain pill of extract of *ignatia* before each regular meal. If she eats four times in twenty-four hours, and the meals are at least four hours apart, she may take a pill at each meal until the nausea and vomiting are stopped, but, as a rule, three pills in twenty-four hours are sufficient, even if more than three meals are taken. This drug does not stupefy the brain and nerves as morphine does, and therefore does not relieve the sickness like an opiate, but gradually corrects the morbid condition, which is indigestion, and stops the sickness permanently. It is not a palliative remedy at all. It has no direct tendency to relieve the sickness. It does not quiet and stupefy the nerves, but arouses them to greater activity, so they stimulate the organs of digestion and cure the dyspepsia of pregnancy upon which the sickness generally depends.

Under this course the sickness generally ceases in two or three days, and often within twenty-four hours, but in rare cases it may have to be given for a week before the sickness is entirely overcome.

One pill should be given three times a day for a month after the sickness has ceased. Persons weighing over one hundred and seventy-five pounds should take the three-quarters of a grain pill, and they must in all cases be coated with sugar or gelatine. Those weighing over two hundred should take a one-grain pill. The use of opium

in any form, or any other remedies that quiet the irritability of the stomach by putting the nervous system to sleep, should not be tolerated in sickness from pregnancy, as such remedies arrest digestion and increase the trouble. For the sour stomach there is nothing better than bicarbonate of soda, and that is nothing more than the common baking soda. Put a heaping teaspoonful in a half glass of water, and give her a swallow of it whenever she has heartburn. As long as there is acid in the stomach, the soda can do her no harm, as the fight is entirely between the soda and acid. The soda destroys the acid in the stomach and the acid destroys the irritating effect of the soda.

CONSTIPATION OF THE BOWELS.

WITH many women constipation during pregnancy appears to be natural. In such cases it is not a disease, but a physiological condition depending upon pregnancy, and limited in its duration to the pregnant state. It is a condition, however, that requires considerable attention, and yet it is best to avoid if possible the use of physic of every kind; not that a moderate physic is liable to cause an abortion or to do any harm to the unborn; but the terrible sluggish state of the bowels lasts for many months, and is more aggravated than benefited by physic, as the tendency of every cathartic is to lessen the vigor and deaden the sensibility of the entire intestinal tract. Therefore the treatment of constipation should be in almost all cases hygienic.

A profusion of fruits of every kind, excepting berries with small seeds, should be eaten every day. In addition to apples either baked, fried, or stewed at meals, several

may be eaten raw during the day, while oranges, peaches, and bananas may also be used freely. By leaving off meat in a great measure, and adopting a fruit diet thus lavishly, the constipation of pregnancy grows beautifully less and often disappears entirely.

PILES IN PREGNANCY.

ONE of the most provoking complications arising from costive bowels and consequent straining at stool during pregnancy, is the development of piles. The best way to avoid them is to use a syringe before each movement of the bowels, and inject into the rectum about a pint of warm water. This will soften the stool so it will pass easily, and in that way the necessity of straining will be avoided. Of course, when the constipation is overcome by a fruit diet, injections are not needed.

ENLARGED VEINS.

ENLARGED and knotty veins of the thighs and legs occur in almost all pregnancies, but usually disappear after the birth of the child. They are due in a great measure to obstruction of the veins by pressure, preventing a free flow of the blood upward to the heart, but the trouble is also increased by constipation. The same obstruction that causes the veins of the lower extremities to enlarge also enlarges the veins of the anus, causing piles, which are simply enlarged and multiplied blood-vessels. The obstruction, the tendency to piles, and enlargement of the veins of the thighs and legs, are all increased by constipation.

Treatment. — If the knotty veins become large so as to be in danger of rupturing, it is best for the patient to wear elastic stockings, so as to firmly support the veins and prevent further expansion of the walls. After the rupture of a vein has occurred the situation is more complicated, as there is an open wound that needs attention. It may soon become an ulcer, soiling the elastic stocking, and rendering its frequent removal necessary. Therefore it is far better to properly support enlarged and knotty veins, so as to avoid all risks of bursting a vein. If the expanded veins are almost wholly below the knee, a short stocking, reaching a little above the knee, will be sufficient, but if the veins of the thighs are also enlarged, the stockings should extend clear to the body. They can be bought of almost any house dealing in surgical instruments. The cotton-elastic stockings will cost about five dollars per pair, possibly a little more. The silks will cost nearly twice as much. In many cases only one stocking is needed.

SLEEP.

EVERY pregnant woman should be permitted to enjoy an abundance of quiet, restful, health-restoring sleep, and for this reason she should not be burdened at night with the care of children.

CLOTHING.

ALL garments should be suspended from the shoulders, so as to absolutely avoid pressure upon the chest and abdomen.

COITION.

IF this is enjoyed by the pregnant woman, moderate sexual indulgence will do her no harm. If distasteful to her it ought not to be tolerated. She should be the sole arbiter upon the question of intercourse during the entire term of pregnancy.

NURSING SORE MOUTH.

THIS is one of the most distressing diseases from which a woman is liable to suffer during pregnancy, or while nursing her child, and as usually treated is as obstinate as it is painfully annoying. It may commence soon after conception, or it may not set in until after the child is born. It often affects the lower side of the tongue, the mucous membrane becoming red and inflamed. The first symptom is usually a smarting pain from swallowing hot tea or coffee. The tendency of the inflammation is to increase and also to spread and involve other parts of the mouth. Sometimes it causes the worst form of sore throat and ends fatally.

Causes.—The predisposing cause is heredity, as it “runs in families,” and is mainly due to a blood taint of some kind. Women of scrofulous parents are especially liable to it. It also occurs frequently among women subject to rheumatic disorders such as eczema. The exciting causes are pregnancy and nursing.

Treatment.—The disease should never be allowed to kill a patient, because there are three ways to get rid of it, one of which is always sure.

The first is to give the following as soon as the disease commences :—

Iodide potassium, two drachms,
Syrup stillingia co., one pint.

Mix, and give a tablespoonful three times a day. This will usually cure a case in a week or ten days. If, however, the case is neglected or badly treated, until the patient is approaching a dangerous condition, the question of premature delivery must be considered if it is due to pregnancy. If due to nursing, the child should be taken from the breast and the milk dried up as soon as possible. This will be followed by prompt recovery. In a very extensive experience with this disease, the writer has only found one case in which the drug treatment failed to effect a cure. In this case, the patient was in the sixth month of pregnancy, and died before the remedy had time to be of any benefit to her.

A local treatment, such as ordinary mouth washes, is almost entirely useless, but it is very important to avoid hot drinks, liquors, or any irritating drinks whatever.

DURATION OF PREGNANCY.

PREGNANCY ends with the birth of the child, and its duration is about two hundred and seventy-five days, dating from the last occurring menstruation. For many reasons it is exceedingly important to know about what time the birth of a child is liable to occur; and in the absence of positive information as to when conception takes place, there is nothing so reliable as the rule that fixes the time at two hundred and seventy-five days after the last day of the last menstruation.

Unfortunately, however, conception frequently occurs while the mother is nursing, and before the menstrual flow suppressed by the previous pregnancy has returned. In such cases, the best way to get an approximate idea as to when the birth is liable to occur, is to place the time at a hundred and thirty-five days after "quickening." This will usually be within two or three weeks of the correct time. During a long and extensive practice in midwifery, the writer kept a record of many cases in which the date of conception was positively known, and in all such cases the duration was within a few hours of two hundred and seventy days.

SEX OF THE OFFSPRING.

THE opinion prevails somewhat extensively among the laity of this country, that where conception occurs soon after the cessation of the menses, the child will be a girl, and that if it occurs a week or more later, it will be a boy. In this calculation, it is supposed that if conception occurs in about four days after the cessation of the flow, the child is about as liable to be of one sex as the other. As far as the observation of the writer extends, the rule holds good, but unfortunately his experience is limited to less than a dozen cases.

SIGNS OF LABOR.

As this is not a work on midwifery, it is not necessary to describe the phenomena of labor, nor to allude to its various stages; but in order that every prospective mother may be on her guard and avoid being left alone and help-

less at a critical time, it is thought best to give the premonitory or warning symptoms of labor.

In the first place, every pregnant woman should know the date of her last monthly period, and by counting forward two hundred and seventy-five days from the last day of the flow, she will usually be within two or three days of her time to be sick; and this, if nothing more, should be a warning to her and her husband.

In addition to this, the precursory signs of labor, consisting of a discharge of mucus streaked with blood, set in within from one to three days before true labor. This is called the "show," and is accompanied by trifling pains in the back and abdomen. Sometimes real labor follows these warning symptoms within a few hours, and this is especially liable to occur with women who have borne children, and therefore the physician who has been engaged to attend the case should be called.

CHLOROFORM AND ETHER IN LABOR.

MILLIONS of intelligent women bear testimony to the fact, that among all the agonizing, torturing pains that have ever afflicted mankind, the suffering of childbirth holds a front rank. Regarding the truth of their statements on this subject, there is no question. It should be the object of every physician, not only to save the lives of men, women, and children, but to prevent, as far as possible, human suffering, to accomplish the greatest amount of good in the world with the least possible pain. There is no more excuse for allowing women — the best part of the human family — to writhe in the agonies of childbirth for hours, than there would be for strapping a man to a table

and amputating a limb without ether or chloroform. Many objections to the use of chloroform in labor have been brought forward. They are all too absurd and groundless to be mentioned. It is a fortunate thing for the present generation, that the great physicians of thirty or forty years ago, who foolishly opposed the use of ether and chloroform in labor, are dead, and that a higher, wiser, and better civilization has in a great measure adopted what they condemned. The writer has given chloroform hundreds of times in labor and never had any bad effects from it. In all cases labor seemed to proceed as regularly and rapidly as if it had not been given, while at the same time the patient was almost free from pain. In recent years he has used ether instead of chloroform, and it is hard to imagine a case in which a physician with any intelligence would be liable to do any harm with it. The short and sharp pains in the early stages of labor should be borne without ether, but by the time the mouth of the womb opens to the size of a silver dollar, it may be given and kept up until the birth of the child. The hard and forcing pains come on an hour or two before the "waters break," and are especially severe from the time the water escapes until delivery, and during this time the patient should have an abundance of ether so as to be almost free from pain. Where she is in her first confinement, and the pains are violent and rapid, giving but little time for the soft parts to dilate, it is best to give enough ether to modify the bearing down effort, and prolong the labor a half hour or more, so as to lessen the danger of rupturing the soft parts. At this stage of labor the patient will bear a great deal of ether before the voluntary, expelling effort is checked to any extent.

It is hard to think of a case in which ether is capable of preventing the mortal anguish that it does in childbirth, especially if labor is severe, and every woman should have it, after the hard, forcing pains come on. She should see her doctor personally before her sickness and get his promise to give her ether. It is a very poor town that does not have more than one good physician, and if one will not give her ether another one will. The drug does no harm either to the mother or the child.

CONCEPTION, AND WHEN IT IS MOST LIABLE TO OCCUR.

CONCEPTION takes place when the living seed of the male is implanted in the female germ. The germ thus impregnated or fertilized is called an ovum, and as to where it is at the time of impregnation, is still a matter of some doubt, and is of little interest except from a scientific standpoint. The time at which conception is most liable to occur, is usually a matter of the greatest importance to young married people, and they are entitled to all the information that can be given them on that subject.

An ovum, which is the Latin word for egg, is matured in one of the ovaries at the time of menstruation, and at the cessation of the menstrual flow is in suitable condition to be impregnated, but the length of time that it remains in the organs of generation after menstruation ceases, is limited, and in many cases is only a few days. Therefore conception is most liable to occur immediately after the flow ceases, and the liability gradually diminishes from that time on.

In a report of thirty-five thousand conceptions that

appeared in a medical work a few years ago, the greatest number were about the fourth day after menstruation ceased. The number of conceptions decreased rapidly from the fourth to the tenth day, there being less than one hundred on the latter date. Five cases occurred on the twelfth day, two on the thirteenth, and none after that date. From the foregoing it seems that less than one in a hundred occurred after the tenth day and none after the thirteenth. Therefore it appears that the cases in which conception occurs after the twelfth day dating from the cessation of the monthly flow, are exceedingly rare, being only one in thirty-five thousand.

CAKED BREASTS AND SORE NIPPLES.

ONE of the most frequent and painful annoyances affecting mothers while nursing their first infant, is, first, inflamed nipple, second, "caked breast," third, abscess of the breast. The trouble usually develops in the order named, and the inflamed and cracked nipple is responsible for the coagulated milk, inflammation of the breast gland, and the abscess. It occurs in this way: the babe irritates the tender nipple by nursing. As it becomes inflamed the milk-duct is more or less obstructed by lymph, requiring greater suction by the babe or a breast pump to get the milk out. The mother cannot endure the torture necessary to empty the breast. The coagulated milk causes inflammation of the breast, and abscess follows.

Treatment. — It is best to commence the treatment before the child is born. The main point in preventing trouble consists in elongating or drawing out the nipples every day with the thumb and finger. This can be done

by the patient's mother, sister, husband, or herself. In addition to drawing them out with the thumb and finger, they should be bathed every day and rubbed with a cloth dipped in cold water. This treatment will almost always prevent sore nipples, and in so doing will prevent abscess of the breast if reasonable care is exercised. The treatment acts favorably in three ways. First. By drawing out the nipple so the babe can easily hold it in its mouth. Second. By making the nipple harder, tougher, and less liable to irritation. Third. By getting the young mother accustomed to having her nipples somewhat roughly handled, she is better prepared for the suction necessary to empty the breasts and prevent "caking" of the milk. If, however, the nipples become the least inflamed, they should be treated immediately by applying the following, two or three times per day : —

Tannin, one drachm,

Glycerine, water, of each a half ounce.

Mix.

Should the nipples be inflamed and cracked, the following is better : —

Zinc ointment, one ounce,

Carbolic acid, one-half drachm.

Mix, and apply night and morning.

The nipples must be carefully cleaned with soap and warm water in either case before allowing the babe to nurse.

DISEASES OF THE SKIN.

DANDRUFF.

OTHER names : seborrhœa ; pityriasis ; acne sebacea.

This is a functional derangement of the fat glands of the skin in which there is an unnatural amount of fatty matter secreted that discharges itself upon the skin in the form of a greasy coating, and sooner or later forms itself into crusts and scales.

Causes. — There are various theories regarding the origin of this affection, but there is no positive information on the subject, the cause of the disease being unknown.

Symptoms. — The disease may occur upon any and every portion of the body, but it is most frequently found on the face and scalp. Seborrhœa oleosa is that form of the disease that appears on the face as a greasy coating. It is unattended with any congested condition of the skin and does not itch as in the scaly variety, but gives a greasy, untidy appearance to the features that is very annoying. In bad cases the oil stands in drops on the forehead and cheeks. This form is called seborrhœa of the face and nose.

Seborrhœa sicca is a form of the affection in which the greasy coating dries up, more or less, leaving scales upon the skin, and is attended with intense itching. When it occurs upon the scalp it is called seborrhœa capitis, which means grease of the head or a greasy condition of the scalp. When these scales or crusts have become somewhat dry, they separate from the scalp and are combed out in the form of dandruff, and the patient is constantly trying to comb them all out ; but the diseased condition is

constant, a new crop of scales is always forming, and the dandruff remains unchanged.

Termination. — The trouble is very obstinate and a perfect cure not often possible, but under the right treatment the condition of the patient can be so modified that he will suffer but little inconvenience from the affection.

Treatment. — The first thing of importance is to act upon the glandular system, and for this purpose take the following : —

Iodide potassium, two drachms,
Simple syrup, one pint.

Mix ; dose, a tablespoonful three times a day. It would be well to follow this treatment for three months. When the scales upon the scalp are dry, and they usually become so, the hair should be cut short, and the head rubbed hard and long with vaseline or sweet oil so as to soften the scales and cause them to separate from the scalp. The head should be covered with a cap of oiled silk at night so as to protect the pillow. In forty-eight hours after the oil is applied in this way, wash the head with the following mixture : —

Strong soapsuds, twelve ounces,
Alcohol, four ounces.

Mix. The long and gentle application of this by rubbing will remove all the grease and detach all the scales, after which the head should be combed with a dull comb so as to avoid wounding the scalp.

After this, the following stimulating and healing application will be of great importance and may effect a cure : —

Corrosive sublimate, eight grains,
Pure brandy, one-half pint.

Mix, and apply to every part of the scalp, once per day,

with a small sponge. The application should be made gently, as rubbing is unnecessary, wetting the affected parts being all that is needed. If with this treatment, conjoined with the iodide of potassium, the case is not greatly improved in two months, the iodide of potassium should be left off and Fowler's solution given as follows :

Fowler's solution, two drachms,

Water, four ounces.

Mix, and give a teaspoonful three times a day.

If, after everything is done that can be, the dandruff still continues to be very annoying, falling out in dry white scales on the clothing, the following, used two or three times a week as occasion requires, will almost entirely stop the dandruff from falling out :—

Glycerine, four ounces,

Alcohol, twelve ounces.

Mix, and shake.

This can be rubbed into the scalp and hair with the hands, and the way in which it prevents the dandruff from falling out upon the clothing is easily understood. The alcohol thins the glycerine so as to make its application easy, and allow it to spread over the entire scalp and also coat every hair in the head. Within a few hours after it is used, the alcohol evaporates, leaving the thin film of glycerine upon each hair, and also upon the scales that are commonly called dandruff. Now when these scales separate from the scalp, they stick to the hair instead of showering down upon the clothing. When a fine comb is used they stick to the teeth, and in this way can all be combed out. The use of this preparation three times per week, with reasonable care in the use of a comb, will keep almost any head of hair practically free from dandruff.

ACNE.

OTHER names: varus; acne vulgarus.

This is a chronic inflammation of the fat glands of the skin, attended with pimples or pustules, and confined mainly to the face and neck.

Causes. — The affection usually commences at the period of manhood or womanhood and may continue indefinitely. The predisposing cause is heredity, as it frequently runs through an entire family of children. Disorders of digestion is one of the most frequent of all the exciting causes.

Symptoms. — To put it in the plainest possible language, acne is a disease in which the face, forehead, and neck are more or less covered with pimples, some of them being small and flat, others pointed and containing fluid, while some others may contain pus. The flat form of the pimple is called a papule, the one containing fluid a vesicle, while the one with pus is called a pustule.

This is an affection of the skin that absolutely ruins the appearance of thousands and thousands of both sexes. In many cases the eruption is very red, is attended with more or less suppuration, rendering the skin disgustingly uncleanly, and almost every one so afflicted has exhausted the medical skill and patience of the neighborhood in which he lives in order to get cured, and yet in nineteen cases out of twenty has neither been cured nor materially benefited. With young ladies the case is simply desperate, as that upon which the hopes and happiness of every woman largely depends is her beauty, and this is totally destroyed by the eruption. It appears that but few things can bring joy to the hearts of more people than the dis-

covery of a remedy or certain form of treatment that will always cure this affection. Such a remedy has been discovered, has been used by the author for a great many years, and is published for the first time in this book. It is applicable not only to this disease, but many other chronic affections of the skin, and is as follows :—

Corrosive sublimate, six grains,

Brandy, one pint.

Mix, and take a teaspoonful before each meal. The following is to be used as a face wash once per day, and applied with a small sponge :—

Corrosive sublimate, eight grains,

Brandy, a half pint.

Mix, and apply with a small sponge to every part of the face upon which there is any eruption, using great care to avoid getting it in the eyes. It will take many months to entirely cure a bad case, but improvement will commence within a few weeks. In the worst case ever treated by the author, both remedies were used for ten consecutive months. In this case a young lady who was so disfigured by the eruption that she had to wear two veils, was completely cured, and became one of the prettiest women of the city. In much milder cases a cure can be effected in a couple of months. But the one general advice to all is to follow the treatment until the patient is cured, as it always succeeds finally. In extreme cases that have lasted for years, it sometimes requires three months to make a decided impression upon the eruption.

WENS.

OTHER names: sebaceous tumors; encysted tumors.

A wen consists of a morbid condition of a fat gland of the skin, and its accompanying duct in which the walls, both of the gland and duct, are greatly expanded and converted into a sack that is filled with a brown colored fluid, somewhat thick, sometimes jelly-like, and in other cases consisting of doughy matter.

Causes. — Entirely unknown.

Symptoms. — Wens come on slowly, and are generally found on the scalp, but frequently occur on the shoulders and back, and sometimes upon other parts of the body. They are generally round or nearly so, and range in size from a buck-shot to a small orange, the largest usually being on the back. They are painless tumors unless irritated by pressure or friction.

Treatment. — This is easy and simple, and consists in opening the sack freely with a sharp knife or lance, and emptying it of its contents. The next thing is to remove the sack, and the best way to do it is to get hold of it with the finger and thumb, carefully work it loose, and extract it whole if possible. When this is done the wen is forever destroyed. In the small wens affecting the scalp they can be opened with a lance, the fluid pressed out, and the little sack filled with two or three drops of the strongest solution of chromic acid. This will entirely destroy the sack so it will never refill.

EXCESSIVE SWEATING.

OTHER names : hydrosis ; hyperidrosis.

This is a derangement of the sweat glands attended with an increased flow of perspiration. It may be either local or general.

Causes. — In the majority of cases the cause of the affection cannot be determined.

Symptoms. — When this disease occurs during an acute disease such as rheumatism, pneumonia, in the advanced stage of consumption, etc., it has no reference whatever to the disease under consideration, for in such cases it is merely one of the symptoms of an acute affection.

When the perspiration has the odor and chemical characteristics of urine, to some extent, it is called uridrosis. When the drops of respiration appear luminous in the dark it is called phosphoridrosis. When profuse sweating occurs locally it generally affects the palms of the hands, the feet, armpits, the anus, and external sexual organs. Excessive perspiration of the feet is the most disagreeable feature of the disease, as the socks become bathed in perspiration, acting as a constant poultice upon the foot, causing the outside skin to peel off, leaving the inner skin so tender as to interfere with walking. In addition to this, the feet give off a sickening odor that is almost unendurable. When the affection attacks the genital organs of the male, as it sometimes does, it imparts a disagreeable odor, to get rid of which frequent bathing is necessary.

There are a great many cases that do not yield to any treatment.

The parts should be thoroughly washed and dried with

a good towel. Then one of the best preparations as a dusting powder is the following :—

Salicylic acid, two drachms,
Tannin, one drachm,
Prepared chalk, four ounces.

Mix, and make into the finest possible powder, and apply it with a puff.

For the profuse sweating of the feet they can be bathed every morning in the following :—

Tannin, two drachms,
Alcohol, two ounces,
Water, six ounces.

Mix, and rub the feet freely, and especially the soles and between the toes with a sponge dipped in this solution. The feet should be thoroughly cleansed with soap and warm water before using the tannin in this way. After this has been used for a few mornings, use the following dusting powder in the socks :—

Tannin, one-half ounce,
Powdered starch, four ounces,
Powdered soapstone, eight ounces.

Mix thoroughly, and apply to the soles of the feet and between the toes with the puff, and dust freely into the socks. It is claimed that a saturated solution of boracic acid, applied once a day to the parts affected, will cause an absolute cure.

To make a saturated solution, put all the boracic acid in water that it will dissolve, and a little more, then shake it well before using it.

CONGESTION OF THE SKIN.

ANOTHER name is erythema simplex.

This is an acute disease in which the vessels of the skin are more or less engorged with blood, assuming a swollen and reddened appearance, the color being removed by pressure. As it is a step in the direction of inflammation the temperature is generally increased.

Causes. — It may be produced by anything acting as an irritant, for example, sunshine in burning the skin causes acute congestion. The application of irritating drugs, severe friction, or pressure will have a similar effect.

Symptoms. — The skin turns red, the color gradually increasing until it may become almost purple, and in all cases as the color deepens the engorgement of the blood-vessels increases. When the irritant producing the congestion is local, the affection is local also, as a general thing.

Treatment. — Remove the irritating cause as soon as possible. To overcome the congested and irritable state of the skin, the treatment is easy and simple unless it has been caused by a poison. If due to friction, pressure, mustard, Spanish flies, the application of heat, or similar causes, the congestion will speedily subside when the exciting cause is removed.

One of the best remedies for acute congestion of the skin is the following:—

Sugar of lead, a heaping teaspoonful,

Water, a pint.

Mix, and bathe the skin, using a soft cloth, once or twice a day.

RINGWORM OF THE BODY.

OTHER names : tinea circinata ; herpes circinatus.

This is a contagious disease of the skin caused by the presence of a parasite, and appears in irregular, slightly inflamed patches upon the body.

Symptoms. — The affection generally commences by the appearance of pimples in patches or clusters which sooner or later arrange themselves into circular form, giving rise to the familiar name, "ringworm." The common size of a ringworm is about an inch in diameter. When the disease becomes very chronic it is hard to distinguish from salt-rheum. This is especially the case when it affects the thighs, and should be treated as the chronic form of eczema.

Termination. — This is always favorable under the correct treatment.

Treatment. — As it is a local affection the application to the affected parts of a suitable remedy to destroy the parasites is all that is necessary. For this purpose the following should be applied to every part of the diseased skin : —

Crystals of chromic acid, two drachms,

Water, one and a half drachms.

Mix, and apply with a camel's hair brush. If the part of the body affected by the ringworms is covered with hair it must be closely clipped. If a great deal of surface is involved, it is not well to treat it all at one sitting, or even during the same day ; but as a general thing it is proper to apply the solution to all the diseased surface at the same time. In the very chronic form, in which the circular or ringworm characteristics have disappeared,

the corrosive sublimate treatment, as advised for chronic eczema, may be substituted for the chromic acid. The formula is as follows:—

Corrosive sublimate, eight grains,
Brandy, a half pint.

Mix, and apply once per day with a camel's hair brush. Before using this the skin must be washed thoroughly clean, as it will do no good if grease or ointment of any kind covers the surface. It should be applied at least once per day, and as the affection is liable to be complicated with eczema, the internal remedies for that disease must be given also, and are as follows:—

Corrosive sublimate, six grains,
Brandy, one pint.

Mix, and give a teaspoonful three times a day. The treatment, both local and constitutional, should be followed until the patient is entirely well, even if it takes months, which it may require if complicated with eczema.

RINGWORM.

OTHER names: *tinea favosa*; *porrigo favosa*; *favus*; crusted ringworm.

This is a chronic, inflamed condition of the skin, caused by a parasite. It is always due to this cause, and is liable to affect persons of any age, as it is decidedly contagious. It is found mostly among people who are careless and uncleanly in their habits.

Symptoms.—Its commencement is characterized by the appearance, usually about the scalp, of small, yellow crusts. In a few weeks the crusts increase in size and sink in the

centre, somewhat like a vaccine scab. They may be few in number or very numerous, and about as large as a pea.

In the early stages of this disease, the yellow color of the scabs and their sunken appearance are so very characteristic that it is easily recognized.

Termination.— This is always favorable, and yields readily to local treatment.

Treatment.— There is nothing more rational than this : If a bug or insect of any kind secretes itself in the skin so as to form an inflammatory affection, the first thing to be done is to kill it. If there are thousands of them, they must all be killed. There is no occasion for constitutional treatment in this disease ; it is essentially local in every respect, and to attempt to cure it with internal remedies is as unscientific as to try to remove a thorn or a splinter from the flesh by giving a physic. The following local remedy, if properly applied, will cure every case :—

Chromic acid crystals, two drachms,
Water, a drachm and a half.
Mix.

This is a saturated solution of the chromic acid, and should be applied to every crust or scab by means of a glass rod or stick dipped in the solution. It is best to touch every part of the inflamed skin in this way, and it will kill every parasite. When these are killed, recovery follows rapidly, and the patient is well within a week. Its use is attended with but little pain or smarting.

If a great deal of the scalp is involved it may not be best to treat every part of it at one time ; but cases of this kind are rare. Before making the application the hair should be cut very short, and great care must be taken to see that every part of the diseased skin, whether on the face or

scalp, is painted with the solution. If thoroughly done, one application is usually sufficient; but the diseased parts should be carefully examined at the end of a week to see if there is any appearance of living parasites, and if so, touch the suspicious spots again with the solution.

SALT-RHEUM.

OTHER names: tetter; eczema; scall.

This is an inflammation of the skin, either acute or chronic, and may have during its different stages, papules, vesicles, and pustules. In the acute stage it is attended with burning and tenderness, and, sooner or later, a watery discharge from the skin resulting in the formation of crusts, and attended with itching. The disease is not contagious. A great many different varieties are named in the text-books, but they are merely different stages of the malady, and to catalogue them here would simply confuse the reader.

Causes. — It is liable to attack persons in all the different walks of life and of any age. There are a great many exciting causes that are liable to develop the affection, but it is doubtful if any or all of them will produce a well-marked case of salt-rheum, in one in whom no hereditary predisposition to the disease exists. Among all the affections that are directly traceable to heredity, salt-rheum takes the lead. Where it is found in one member of a family of any size, it is almost sure to crop out in several others, sooner or later. Where a train of symptoms attending an acute inflammation of the skin is rheumatic in character, that is, having the characteristics of salt-rheum, they are exceedingly easy to overcome by treatment if no hereditary ten-

dency to that affection exists, and therefore it is very doubtful if such cases as recover with but little if any treatment are salt-rheum at all.

Symptoms. — Salt-rheum is so varied and profuse in its forms, stages, and symptoms as to assume the character, during the different periods of its development, of several other skin diseases, but when it is watched through a number of its stages, it is not liable to be confounded with other affections.

It is the most common of all eruptions, and it is probable that something near one-half of all the chronic ailments of the skin are eczema, in some of its many forms and stages. Therefore, if a skin disease commences with heat, redness, and swelling, attended with a watery discharge that leaves a crust on drying up, and is further characterized by intense itching or burning, it is safe to call it eczema or salt-rheum.

The simplest form is attended with redness of the skin in patches, and as a general thing there is no discharge from the surface.

The papular form is that occurring in bright-red or dark-red pimples. It is more or less associated with the vesicular form to be hereafter described, and is characterized by terrible itching.

The vesicular variety commences with the four principal signs of inflammation, namely: heat, pain, redness, and swelling, soon followed by the appearance of small vesicles containing fluid. When these vesicles or pimples rupture, the escaped fluid spreads over the surface and dries up, leaving crusts or scales. Itching is the terribly distressing symptom of this form also.

The pustular form usually affects the face and head but

mostly the latter, and is characterized by large, thick crusts from between which there is frequently an oozing of matter. This variety is commonly known by the name of scall-head.

Eczema rubrum is a form characterized by red skin, as the word "rubrum" means red. But this variety has no symptoms essentially different from other forms.

The fissured variety is one in which the skin is fissured or cracked. Sometimes these fissures are extensive, deep, and very painful. They frequently affect the hands, and are known by the familiar term, "chapped hands."

In order that eczema may never be mistaken for any other disease, the following condensed symptoms characteristic of the affection, are given, namely: *Inflammation of the skin, swelling, redness, a discharge of moisture which is followed by crusting, and itching and burning.* If all of these symptoms are found in any case, it is eczema, as they are practically its autograph.

Termination. — If properly treated, this is always favorable, as every case ought to be cured, unless it is complicated with disease of the stomach or other infirmities, by which the patient is rendered incapable of taking the necessary medicine.

Treatment. — As eczema is a constitutional disease, and undoubtedly of ancestral origin, so far as a predisposing cause is concerned, the main treatment should be constitutional. On whatever part of the body it appears, it writes its full name and character by a half-dozen distinguishing symptoms that point unmistakably to a blood disease that may be centuries older than the patient.

To suppose that such a condition can be eradicated or torn out by the roots in a few weeks, is utter folly. It

takes months, and sometimes many months, too, to cure a bad case ; but the author has had an extensive experience with the disease in all its many forms, and has never failed to cure any case where he has been permitted to carry out the treatment as desired. The two plans of treatment to be hereafter given — one for the acute, and the other for the chronic — are not experimental. They have been tried in a great many cases, and always succeed. The object in speaking in such positive terms of the treatment, is to inspire every patient with a degree of confidence necessary to follow it long enough to effect a permanent cure. The length of time required to cure a case depends, to some extent, upon the time the disease has been running. Where it has recently broken out, it can be conquered in a few weeks with but little if any local treatment.

If the disease has only existed a few weeks, or even a few months, the following should be given immediately, and followed until the patient is well :—

Iodide potassium, three drachms,

Compound syrup of stillingia, one pint.

Mix, and give a dessert-spoonful three times per day.

There are a few, and only a few, rules of caution to be observed regarding this remedy. First. Be sure to get it put up by a good, reliable druggist. Second. If the patient is a child, the dose must be reduced to suit the size and age, and in all children under ten years old a teaspoonful three times per day will be sufficient. Third. By the time the syrup is given a few days, all the symptoms may become aggravated, the skin being redder, the inflammation greater, and the burning and itching more intense. In such cases the remedy must be left off for three or four days, and then given in a little smaller doses. After it is

given for a few weeks, if no further aggravation follows, the dose may be gradually increased to the amount first given. It sometimes causes an unpleasant feeling in the throat, and also a watery discharge from the nose, as if one had a cold; but these annoyances can be easily borne when every patient is assured that a permanent cure will result in a short time. In the acute form, that is, in cases of recent origin, no local treatment is used with a view of having a curative effect. A little vaseline gently applied to the affected skin will prevent a great deal of the itching and burning, and will also keep the crusts or scabs soft.

In the form of the disease affecting the scalp, the crusts are usually large, sometimes more or less loose, and pus, or white matter, will frequently make its appearance from beneath one when it is pressed. The pus and watery discharge stick the hair down firmly upon the large scabs or crusts, and the whole surface is often of a dirty, yellowish green. Such cases frequently resist the ordinary treatment for several years, first being treated by one physician, and then by another, and all to no purpose. But although a case may have been running for a few years, the disease may be more acute than chronic in its nature, and the iodide potassium and syrup of stillingia, as advised for the acute form, is the best treatment; but it will take six months, and sometimes longer, to cure cases of this kind. Success probably depends more upon the alterative and curative effect of the stillingia than upon the iodide potassium. Whether this is true or not, the form of eczema that affects the scalp as above described, is always cured by the mixture if properly given. This variety of the disease is commonly termed "scall-head," and is never too chronic to be cured with the one general treatment given

for all acute cases. During the constitutional treatment of "scall-head" no local treatment is needed except for the purpose of making the patient as comfortable as possible. No effort should be made to remove the crusts until they are loose enough to drop off, as they afford great protection to the inflamed skin beneath. The hair should be kept short, and the frequent use of vaseline will prevent matting together.

CHRONIC ECZEMA.

THE generic or original meaning of the word "chronic," signifies "of long duration," but in medicine it does not necessarily mean "of long standing," as a disease affecting one person may be acute at the end of a year, while the same disease attacking another may be chronic within a week or two. Some forms of eczema are more chronic than acute in character from the beginning. When it comes on gradually, with no active, inflammatory symptoms, but is mild and sluggish in its development, it is chronic in form, although of recent origin, and must be treated as chronic.

If any local treatment is used in the acute form, it should be something to reduce the inflammatory action and modify the intensity of the disease. Whatever local application is used in the chronic form is to make the diseased action more violent, and develop in that way a healing and, ultimately, a curative effect. Therefore, a local treatment is always conjoined with the constitutional in chronic eczema, the internal remedy being as follows:—

Corrosive sublimate, six grains,
Brandy, one pint.

Mix, and give a teaspoonful before each meal.

This mixture must be taken for months, or until the patient is entirely well.

The local treatment to be applied at least once per day is as follows:—

Corrosive sublimate, eight grains,
Brandy, one-half pint.

Mix, and apply once per day with a soft brush, a camel's hair brush being preferred. It is rarely if ever needed in "scall-head," or in the suppurative form, the variety in which matter is discharged from beneath the scabs. Such cases are cured with the iodide potassium and stillingia, and where the syrup mixture is used, the corrosive sublimate and brandy should neither be given nor used locally.

There are many forms of eczema in which the skin is very red and tender, and the affected parts have to be covered constantly to avoid the chafing effects of the air. This is especially the case when one or both hands are diseased.

Sometimes a hand is wrapped up for years in this way with salt-rheum, and is red, painfully tender, more acute in character than chronic, and stubbornly resists all ordinary efforts in the way of treatment. The corrosive sublimate remedies, as herein advised, will cure all such cases within six or eight weeks. Improvement will be apparent within a week or so, and the cure will be permanent; but it may take months for the skin to lose the unnatural color. In almost all forms of eczema, except "scall-head," the corrosive sublimate mixtures are preferred to the iodide potassium and stillingia whenever the patient can comfortably bear the application of the local remedy, as the cure is much more rapid from the two mixtures

of mercury and brandy than from the syrup and iodide, the cures being permanent in both cases.

Sometimes two or more diseases of the skin affect a person at the same time, the symptoms being so confusing that it is impossible for a specialist in skin affections to know what particular form of skin disease he is treating, and he is, therefore, compelled to proceed on general principles, and cure his patient if he can.

The remedies prescribed in this chapter will cure other forms of skin disease besides eczema, provided the symptoms are somewhat similar. Then, again, about one-half of all the chronic affections of the skin are eczema in some form, so that a non-professional, should he call every eruption of the skin he sees, eczema, would be right about half the time. Therefore :—

To fathers, mothers, sisters, and brothers,

Uncles, aunts, cousins, and others,

the following advice is given : When you encounter a skin disease that you cannot possibly name, carefully read the chapter on eczema, including the treatment, and if you find symptoms somewhat similar to those of eczema in any of its stages, treat the affection accordingly, and if you cure a disease and do not know its name nor much of its peculiar character, you simply do what we doctors are compelled to do many, many times every year we practise medicine.

THE ITCH.

ANOTHER name is scabies.

This is a highly contagious disease caused by the location of little animals in the skin, and is attended with an eruption that usually involves most of the body except the head, neck, and face. The eruption has three stages: First, the papule or pimple, when it first begins to make its appearance; second, the vesicle, when the pimples are filled with fluid; third, pustules, when pus or matter is present in the pimples. The little parasites burrow into the skin, causing inflammation and intense itching, to relieve which the patient is seized with an irresistible desire to scratch; this tears the top off the vesicle or pustule, causing more or less bleeding, and greatly changes the appearance of the affection.

Termination. — This is always favorable if properly treated.

Treatment. — No internal remedies are needed in the treatment of itch, as it is purely a local affection. The following ointment will cure every case if the directions are carefully followed: —

Venice turpentine, three drachms,
Powdered sulphur, one ounce,
Vaseline, three ounces,
Carbolic acid, one drachm and a half,
Oil citronella, one drachm.

Mix, and rub thoroughly over every part of the body except the face and head, applying it at bedtime. On the following night apply it again in the same way, and the next night wash thoroughly with very warm water and castile soap so as to remove every part of the ointment,

and then put on clean underclothes. Common lard may be used instead of the vaseline if desirable, and is quite as good in every way.

BARBER'S ITCH.

THIS is a contagious affection of the skin due to a parasite, and involves the roots of the whiskers. It is a very contagious disease, and is said to be communicated to gentlemen by the barber while they are being shaved, the infecting parasite being transferred to the skin by a brush or sponge.

Symptoms. — This form of itch begins as scaly patches, the affected skin being reddish and gradually becoming more inflamed and thickened. As the inflammatory action increases, the skin becomes thicker and lumpy with points of suppuration. The pain, itching, and burning are very severe in some cases.

Treatment. — The first thing to be done is to clip the beard as short as possible, and put a poultice of flaxseed meal on the face and allow it to remain all night. In the morning remove the poultice, and wash the face with castile soap and warm water, carefully removing all crusts or scabs if it can be done without making the face bleed. Then touch all the diseased portions of the skin with a solution of chromic acid, made as follows : —

Chromic acid, two drachms,

Water, one drachm and a half.

Mix, and apply with a camel's hair brush, using it sparingly so it will not spread to parts not touched with the brush. If this is properly done one application will be sufficient to effect a cure. If it attacks a person with

heavy whiskers, and there are serious objections to having them clipped close so as to allow the chromic acid solution to be properly applied, the following can be used instead, and will usually effect a cure : —

Corrosive sublimate, ten grains,

Brandy, one-half pint.

Mix, and rub it into the skin thoroughly wherever the disease exists. If thoroughly applied it will kill the parasites, and recovery will soon follow.

FRECKLES.

ANOTHER name is lentigo.

This is a dark or yellowish deposit in the skin, showing itself in the form of yellow specks that are sometimes as large as a pea. It is most observed on the face, neck, and hands, because those parts of the skin are most exposed to the sun and air.

Causes. — The predisposing cause is hereditary and the main exciting cause is sunshine.

Termination. — So far as permanent cure is concerned, this is not very favorable unless the patient is protected from the sun.

Treatment. — This affection becomes very serious when the blotches are large and deeply colored upon the faces of young ladies, and efforts are constantly made to bleach out the spots by the use of various drugs recommended for such purposes. It seems the best remedies that have ever been found are only successful to a limited extent.

In all diseases the most important thing to be done is to get rid of the exciting cause, and this is especially true with freckles. Therefore the only rational plan that can

yield anything like satisfactory results is for every person who is constitutionally inclined to have freckles, to veil their faces from the sun. The following local application enjoys the reputation of being one of the very best to remove freckles :—

Corrosive sublimate, six grains,
Diluted muriatic acid, two drachms,
Alcohol, two ounces,
Glycerine, one ounce,
Water, a half pint.

Mix, and apply at bedtime, taking great care to avoid getting it in the eyes. It should be washed off next morning with soap and warm water.

CHALK-LIKE DEPOSITS IN THE SKIN.

THIS affection has a great many other names that are decidedly technical and unnecessary to mention here, and consists of a deposit of cheesy matter in the duct of a fat gland of the skin, the mouth of such duct, for some reason, being permanently closed. The white deposit is therefore imprisoned, and shows through the thin, overlying skin as a small piece of chalk. These little lumps range in size from small bird-shot to a large grain of wheat, and are usually seen about the eyes, upon the eyelids, and just below the eyes.

Termination. — This is always favorable.

Treatment. — This consists in opening the sack, holding the substance with the point of a sharp knife, or picking it open with a needle and squeezing its contents out. After this if the sack should refill, it should be emptied in exactly the same way, and then touched with a saturated

solution of chromic acid. This should be used very sparingly, as the head of a pin will hold enough when crowded into the opening to destroy the sack. Opening the sack with a needle or lance is almost entirely free from pain.

HIVES.

OTHER names : nettle-rash ; urticaria.

This is an inflammation of the skin accompanied with numerous round elevations of the surface, being somewhat deeper in color than the surrounding skin. For example : The skin may be a light pink while the circular elevations, known as hives, are a deeper red, and attended with burning, itching, and stinging.

Causes. — Hives prevail more extensively in hot weather, scarcely causing any trouble during the fall, winter, and early spring. It can therefore be accepted as a rule that the heat of summer is the principal exciting cause. As all affections of the skin are influenced, more or less, by disorders of digestion, the condition of the stomach must be considered in dealing with hives.

Symptoms. — Hives are known by the sudden appearance of rounded elevations upon the surface of the skin, called *wheals*, which are frequently whitish to commence with, and later becoming pinkish or a deeper red. The color, no doubt, is frequently deepened by rubbing or scratching to allay the itching.

The most distressing feature of this affection is the terrible itching. The *wheals* are usually small, not much larger than a half pea, but sometimes are as large as an egg. They may be very few in number, while in other cases they cover the entire body.

Treatment.—To relieve the distressing itching, the hives should be bathed in a strong solution of baking soda. About two heaping teaspoonfuls of the soda to a glass of water will probably answer, but should it fail to allay the itching, it must be made strong enough to cause a little smarting of the skin, when the itching will cease.

Another very efficient local application to stop the itching is the following :—

Carbolic acid, a tablespoonful,
Water, one pint.

Mix and shake. Dip your finger in the solution, and wet every itching *wheel* by touching one at a time. If they are numerous, the surface involved may be wet by a sponge or soft cotton cloth dipped in the solution. They must neither be scratched nor rubbed, as anything that irritates the skin greatly increases the trouble, especially the itching.

Stimulants of every kind, including tea and coffee, should be left off. The following is one of the best remedies to break up an attack of hives :—

Salicylate of soda, two drachms,
Water, four ounces.

Mix, and take a teaspoonful every two hours for twenty-four hours. Then give the following mixture until there are free watery discharges from the bowels :—

Epsom salts,
Cream of tartar, of each an ounce.

Mix thoroughly, and take a heaping teaspoonful in a half glass of water every three hours until it commences to act on the bowels. During an attack of hives it is best to use every possible means to avoid heating the blood, and, therefore, the clothing should be very light,

and exercise in the heat of the day should be avoided. Should the patient resort to bathing to quiet the burning and itching, the water should be a little warm, as the reaction from a cold bath greatly aggravates the affection.

BLACK-HEADED WORMS.

OTHER names: *acne punctata nigra*; *comedo*.

This is a disordered condition of the fat glands of the skin, in which there is retained in the duct of each gland a resinous, cheese-like secretion, having in its centre a black point. When this obstructed duct is squeezed between the thumb and finger nails, the cheesy substance, crowned with a black head, comes out and turns over upon the skin, presenting the appearance of a worm the eighth of an inch long or more, and for this reason the affection is usually known as black-headed worms.

Causes. — The only thing sure in reference to the cause, is that it runs in families, and is therefore due to an inherited predisposition.

Symptoms. — This is a chronic derangement of the skin unattended by irritation, itching, or any other unpleasant symptom except disfiguring the features of the patient, as the mouth of each excretory duct of the skin may be a black speck, giving a person the appearance of having been burnt with powder.

Termination. — Under proper treatment this is usually favorable, but many cases are tedious and troublesome.

Treatment. — To begin with, the disorders of the stomach and bowels, if any exist, should be corrected. The local treatment consists in poulticing the face over night with bread and milk or flaxseed, and washing thoroughly

in the morning with soap and water, and rubbing the so-called worms out of the skin with a Turkish towel. Those that cannot be rubbed out can be pressed out with the thumb nail. After this, the application of zinc ointment once per day will be of great service to prevent their return. It may be continued for a week.

CARBUNCLE.

ANOTHER name is anthrax.

This is a circumscribed inflammation, the skin and tissues involved being thickened, hardened, of a dark red color, and very painful.

Causes.— It most frequently occurs after the meridian of life, but its real cause is unknown.

Symptoms.— To commence with, it is usually a circular inflammation rising somewhat above the surrounding parts like a boil, and taking on a dark red or purple color. Sometimes the inflammation is deep and extensive in all directions. The pressure from congestion and deposits of lymph partially arrest the circulation, causing more or less destruction of the central part of the carbuncle by gangrene. There may be several of these points in which death of the tissue has occurred. These form openings through which matter is permitted to escape. As the disease progresses, these numerous openings may honeycomb the whole central part, leaving but little living flesh between the openings. The affection is attended with severe throbbing pain, loss of appetite, coated tongue, and the usual symptoms of inflammation. Its duration is from two weeks to two months, and its favorite location seems to be the back of the neck.

Termination. — This is not always favorable, as blood poisoning is frequently a fatal complication.

Treatment. — The diet should be nutritious, consisting of beef, chicken, or mutton broth, and all the good animal food that the patient may desire. As a tonic, the following is probably as good as can be given : —

Fluid extract of Peruvian bark,
Fluid extract of wild-cherry bark,
Of each, six drachms,
Sulphate of iron, thirty-two grains,
Port wine, one pint.

Mix; dose, a tablespoonful before each meal.

After the flesh of the carbuncle is mostly destroyed by a number of pipes that are connected only by thin walls, there is no quicker, better, and safer plan of treatment than to cut the whole honeycombed portion out, leaving on all sides a wall of inflamed flesh. The operation is easy, simple, and almost painless. For this purpose the writer has always used curved scissors similar to those used by an oculist in taking out an eye. In order to do this without giving ether, the walls of the pipes embracing the central and main part of the carbuncle are wet with a strong solution of carbolic acid so as to turn them white. By this means, clipping the tissues that separate the openings from each other is practically painless, and the operation is attended with no hemorrhage to speak of. When it is all removed, leaving the walls of the carbuncle sound and free from any dead tissue, the cavity may be packed with absorbent cotton wet with a five per cent solution of carbolic acid. This course greatly lessens the danger from blood poison, and recovery sets in immediately.

The cavity gradually fills up with granulations, and the

scar does not seem to be increased much, if any, by the operation.

FLESH-WORM DISEASE.

OTHER names: *trichinæ*; *trichina spiralis*; pork worm.

This is a condition of fever caused by the pork worm entering the stomach and bowels, and meandering, sooner or later, into other parts of the body, especially the muscular structure. It is attended with severe irritation of the stomach and bowels, soreness of the muscles, and a typhoid type of fever.

These worms gain entrance to the human body by the use of hog's flesh in the raw or imperfectly cooked state as food. The intestinal pork worm, which is fully matured in its sexual organs, is from one eighteenth to one eighth of an inch long, the longer ones being the female. Seen under the microscope they appear about as large and long as a fine cambric needle. As the author remembers them, after the lapse of several years, they look like a miniature snake, the head being enlarged, and the neck somewhat slender. They propagate by eggs.

Symptoms. — These are greatly modified by the number of worms in the affected food. It is claimed by good authority that a cubic inch of pork may contain eighty thousand of the parasites.

The intestinal stage of the disease is that during which the worms are in the stomach and bowels, and is attended with nausea, vomiting, and liquid diarrhœa. The symptoms are grave or mild, according as the number of worms are many or few.

The second stage is the one during which the worms travel to other parts of the body, and invade the muscular

tissue. This stage is attended with fever, somewhat typhoid in character, thirst being great, tongue and lips dry, face red and swollen, with great soreness of the muscles.

Encysted stage. — This is the stage of the affection in which the parasite locates himself, and ceases to migrate, a cyst or small sack forming around each one of them. In this way the ravages of the worms upon the flesh are stopped. If the number that have invaded the muscular structure are comparatively few, recovery may occur during this stage.

The mortality depends almost solely upon the number of worms in the pork, but, on the average, from twenty-five to fifty in a hundred die.

Treatment. — The prevention consists in eating no pork that has not been thoroughly cooked. If the infected meat has been recently eaten, a thorough emetic should be given so as to have it expelled from the stomach. A large physic of castor oil should also be given to carry them out of the bowels. After they leave the stomach and bowels their prostrating effects on the system is readily apparent, and stimulants and tonics should be resorted to.

CHAFING.

THE technical name of this very common affection is erythema intertrigo.

It is a congested or inflamed condition of the skin, caused usually by friction of the opposite parts of the body, and is specially troublesome in hot weather among fleshy people.

Causes. — It is an annoying affliction confined mainly to fat people, and caused by chafing of the opposing skin surfaces in walking. In such cases it is usually between

the thighs or buttocks. It also occurs under the arms, and is then due, in a measure, to perspiration and rubbing of clothing.

Symptoms.—Redness and soreness of the opposing surfaces of the skin, caused by the movements of the body, the parts affected being the groins, armpits, beneath the breasts of females, or any other parts of the body where undue friction occurs from the folds of the skin coming in contact with each other.

Treatment.—The affected parts should be washed thoroughly with soap and warm water and carefully dried, then dusted with powdered starch, soapstone, or prepared chalk. There is scarcely anything better than powdered starch, which can be applied with the fingers or a puff. In addition to this it is important to keep the opposite surfaces separated by the use of lint or absorbing cotton. The latter is of great service in separating the buttocks, where persons are exceedingly fleshy. Where the chafing has developed an inflammatory condition, it is better to wash it thoroughly clean in soap and warm water, and use the following lotion at bedtime:—

Sugar of lead, a heaping teaspoonful,

Water, a pint.

Mix.

The parts should be thoroughly washed in the morning, and gently dried with a soft towel, and then some one of the favorite dusting powders applied freely. Common flour is a good substitute.

WARTS.

THE technical name is verruca.

A wart consists of a morbid or unnatural excrescence upon the skin, and may be as small as a pin head or as large as the end of a finger. They are due to an unknown cause.

Symptoms.—The common wart is familiar to almost every person, their favorite location being upon the hands and fingers. There are many strange things in connection with this form and the manner of getting rid of them. There are two drug treatments known to the author, one of which will remove a great many warts without causing any inflammatory action whatever. The remedy is sal ammoniac, and is applied by wetting it with saliva and rubbing it on the wart once per day, causing it to disappear in a couple of weeks. It may be that this treatment would remove all of the common form of warts, if kept up long enough. A gentleman who undertook this treatment upon a large wart on his finger, applied it once just before starting on a long journey. He forgot his remedy and deferred further treatment till his return, several weeks later. On getting home he got the crystal of sal ammoniac to commence the treatment again, but could not find the wart. This treatment is painless, and should have a thorough trial before using severer remedies. A treatment that never fails to destroy any wart, if applied for a sufficient number of times, is chromic acid, as strong as it can be made. The solution is prepared by putting a drachm of the crystals in the least amount of water that will dissolve them, which is probably about the weight of the crystals. The application of the drug turns the wart black, hard, and dry, and it finally falls off, leaving an inflamed surface that soon

heals. There are a great many curious remedies for warts that nobody can explain nor have any idea of the manner in which they operate. For example: Some persons are especially gifted as wart doctors, and by wetting their finger with saliva and touching the wart, always cause it to disappear. When the author was a boy, he knew a man who had this peculiar faculty, and gratuitously removed warts from the hands of all the boys and girls in the neighborhood by simply wetting the wart with saliva, and repeating some meaningless rigmarole of words. Another plan very popular in the country is to go to an old hollow stump partially filled with stagnant water, and wash the hands covered with warts every morning for a week, walking round the stump three times each morning. It seems this is usually successful. It is probable that the curative value of all such methods, including wetting the warts with saliva, depends upon the influence that the treatment has upon the mind of the patient.

Verruca filiformis is the long, slender character of warts found on the face, eyelids, neck, and inside of the thighs. These warts are from the eighth to a quarter of an inch long, and are easily removed by tying a thread around them, making the knot double so it will not slip. The wart turns black and drops off in forty-eight hours, the treatment being almost wholly unattended with pain.

CORNS.

ANOTHER name is *clavus*.

Unfortunately, almost every one who has worn shoes is keenly aware of the character and sensitive nature of a corn, and therefore a description of the horny and painful thing that afflicts so many people is unnecessary.

Causes. — Corns are always caused either by pressure or friction, and in almost all cases by pressure from tight shoes or boots.

Treatment. — As the principal cause is a tight-fitting boot it must be changed for one that is soft and easy. Something depends upon the character of the leather as well as the fitting. If this is coarse, heavy, and more or less unyielding it may cause a corn, even if the shoe is abundantly large. In order to remove a corn it is best to soak it for half an hour in hot water to which has been added a few ounces of hartshorn. After this most of the corn may be scraped off easily with a dull knife. If this is followed up about twice a week for a couple of months the corn will almost entirely disappear. And during all the time of treatment it is well to wear a corn-plaster ring to avoid pressure from the shoe. Where a corn is very large and troublesome it is best to have a shoe made with the special object of protecting it from pressure. In such a case a shoemaker who understands his business will put a bunch upon his last, considerably larger than the corn, and exactly corresponding to the location of the latter upon the foot. In this way the leather never contracts sufficiently to bear much if any upon the corn, which gradually grows less.

Soft Corns. — These occur between the toes, and the best way to get rid of them is to soak them for a long time in warm water in which a little caustic potash has been dissolved. It should be as strong as can be borne without smarting of the skin. After this the foot must be thoroughly washed in soap and water, wiped dry, and the corn picked out with the point of a dull knife.

All such corns, as well as hard corns that are painful

and tender, should be treated night and morning with the following liniment until the soreness disappears : —

Strong spirits of ammonia,

Olive oil,

Spirits of turpentine, of each, one ounce.

Mix. Previous to applying this, every corn should be dressed down as thin as possible with a sharp knife, care being taken to avoid making it bleed.

INGROWN TOE-NAILS.

THIS is a condition of the toe-nail in which the edges have grown down into the flesh. There are two main causes of the trouble : One is narrow-toed or badly fitting shoes that press upon the outside of the nail of the great toe, so as to change its direction and drive it down into the flesh. The other cause, and a very frequent one too, arises from the bad way in which the nail is trimmed. If this is done with a knife, and part of the nail cut off of the edge instead of the end, it destroys the shape of the nail, and causes it to send its sharp and unnatural edge into the flesh, causing great pain and soreness. This bad management in the matter of trimming increases the nail deformity until the person cannot get round without great inconvenience.

Treatment. — This is easy and simple, and yet it may take a few months of proper management to get the toe-nail back to an easy, natural condition. In the first place, in order to avoid running the knife too far up the edges of the toe and in that way removing some of the nail from each side, it is best not to use a knife at all in cutting the nail. The main thing is to cut the nail square across or

nearly so, and if it is done with scissors it is almost impossible to do it any other way, and if they are so trimmed for a number of months, the nails will become much less inclined to turn down as the corners project, so as to rise above the flesh instead of going into it. Another important treatment, however, must be conjoined with correct trimming in order to get the deformed nail in a natural condition. This consists in carefully scraping the horny edge until it is quite thin so it will easily bend, then lifting it with the point of a dull knife and pressing a small tuft of cotton under it. This raises the edge of the nail and changes its direction so it grows over the flesh instead of into it. In such cases it is best to wear a tuft of cotton under the nail for several months, scraping the edge of the nail now and then if necessary. When the foot is washed the old tuft can be taken out, and a clean one inserted in its place. It is hard to imagine an ingrown toenail so terribly distorted, horny, and refractory as to require removal by the surgeon's knife, and yet the operation is frequently performed, and, unhappily, without overcoming the difficulty. A ten-year old boy or girl, if properly instructed, can do all the surgery necessary to cure an ingrown toe-nail, and all the instrument needed is a common pocket-knife to scrape the edges until they are thin, so they can be raised sufficiently to admit a tuft of cotton. The scraping should be commenced at least a quarter of an inch from the side of the toe-nail, the point of the knife being directed toward the flesh, the scraping being deeper as the edge is approached. Meanwhile, the nails must be trimmed with scissors instead of a knife.

POISONS.

FOR the sake of convenience it is best to divide poisons into three principal classes, as follows :—

First. *Corrosive poisons*, or those that cause death by their violent and destructive action upon the stomach.

This class includes all the powerful acids, both mineral and vegetable, and also strong alkaline salts such as caustic soda and caustic potash.

Second. Poisons that act upon the brain and nervous system. This class includes *morphine*, and *opium* in every form, *antipyrine* and similar painkillers, the most deadly of all being prussic acid.

Third. In this class are included drugs that have a tendency to destroy life both by their corrosive action upon the stomach and their effects upon the nervous system. The well-known drug, *carbolic acid*, belongs to this class.

Treatment. — For all poisons that are truly acid, such as *nitric acid*, *sulphuric acid*, *muriatic acid*, and *strong vinegar*, common baking soda must be given about as follows : Put a heaping tablespoonful of the soda in a pint of water, and give a swallow of it every few minutes until gas ceases to come from the stomach, and then give three or four tablespoonfuls of sweet oil.

When *caustic soda* or *caustic potash* or *lye* of any kind is swallowed, give the following immediately :—

Vinegar, one ounce,

Water, three ounces.

Mix, and give a swallow every few minutes until gas ceases to rise from the stomach, then give three tablespoonfuls of sweet oil.

If *morphine*, *opium*, or any other poison, except an acid

or an alkali, is swallowed, its fatal effects may often be prevented by giving three or four ounces of sweet oil or several raw eggs. The oil or the eggs get mixed up with the poison so its absorption by the stomach is greatly delayed, and the effects of the poison being much more gradual in coming on are much less dangerous. An immense quantity of milk or melted butter is also good in such cases.

The best *antidote* for *morphine* after its poisonous effects have set in, is the *sulphate of strychnine* to counteract the tendency to profound and fatal slumber, and if the drug is given until it causes jerking of the muscles, it will probably arouse the action of the brain so as gradually to restore the natural action of the heart, lungs, and other organs, and save the patient.

The dose of the strychnine may be from the tenth to the fourth of a grain, according to the extent of the poison from morphine. It should be given until its characteristic effects, which are jerking of the muscles, show themselves.

The best remedy for *strychnine poisoning* is morphine, and the dose may be a half grain to commence with.

In addition to this, chloroform should be given by inhalation until the muscles are perfectly relaxed, and the patient should be kept under the influence of chloroform or ether sufficiently to prevent spasm of the muscles, until the effects of the strychnine have worn away.

In poisoning from *arsenic*, several raw eggs should be given as soon as possible. The following drug is the best antidote:

Hydrated oxide of iron, in the soft, pulpy form, the dose being a tablespoonful as soon as possible and repeated every ten minutes until the dangerous symptoms are over. The dose for a child is a teaspoonful to a dessert-spoonful, according to age.

DISEASES OF THE RECTUM AND ANUS.

IN the great list of diseases that afflict civilized mankind there is no class of ailments so prevalent; none causing more intense suffering; none that annoys and distresses more people in their daily vocations; and none that causes a wider range of sympathetic affections, than diseases of the *rectum* and *anus*. While there is no part of the body more liable to painful and enduring diseases, there is no part subject, either through carelessness or ignorance, to such shameful neglect and mismanagement.

It is thought that nearly one-half of the adult population in civilized lands suffer more or less from either piles, fistula, fissure, or some other form of rectal disease before reaching the middle milepost of life's journey, and among them are millions whose physical anguish almost makes life a burden.

A careful inspection of Plate I will show the comparative size, shape, length, and location of the rectum in the pelvis. The two muscles, *A, A*, running back from the front bones of the pelvis to the lowest point of the spine are called the *levator ani*, which means lifter of the anus.

During the act of stooling these two muscles draw up the anus and close the neck of the bladder. For this reason persons cannot pass their stools and their water at the same time.

When the rectum is distended with *feces*, the contents of the bowels, it occupies a great deal of the pelvis. Figure 1 shows the natural location and curve of the *rectum*, its back surface being very close to the spine, and

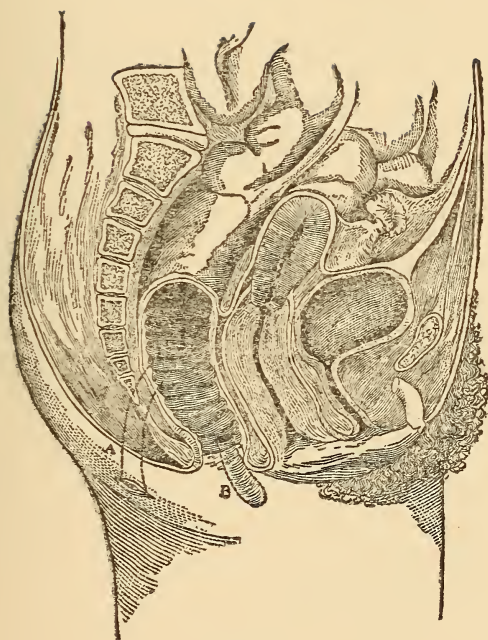


FIG. 1.
A. Complete Fistula.
B. Blind Internal Fistula.

its curve corresponding mainly with that of the latter, while its front surface is almost in contact with the womb. The dark line in front of the *rectum* going upward and bending forward to the womb is the *vagina*.

In this figure the lower part of the *rectum* is cut away in order to show a complete fistula entering the bowel. It is easy to see how distressingly crowded these organs become during the early months of pregnancy, when the constantly growing womb is wedged in between the *rectum* and bladder. The poor *rectum*, however, gets the worst of it, as it is crowded back against the unyielding spine by the heavy and somewhat solid womb, and more or less flattened, and in this way serious constipation often occurs. The obstruction thus produced offers a resistance to the upward passage of the blood through the veins to the heart; causes enlargement of all the veins of the thighs, legs, and feet; and favors the development of piles. At length, fortunately, the distended womb becomes too large for the pelvis and rises into the abdomen, and as it rises out of the pelvis, the *rectum* and bladder are gradually relieved from uncomfortable pressure.

It is the erect position that throws the weight of the bowels and that of their contents more or less upon the organs of the pelvis; it is the erect posture that multiplies the afflictions of women during pregnancy; it is the downward pressure of the abdominal organs that causes men engaged in heavy work to have piles; it is the weight and downward force of the intestines occasioned by our perpendicular position that causes the *rectum* to protrude so many times through the *anus*; and it is the upright posture that renders both sexes liable to many painful affections never found among dumb animals.

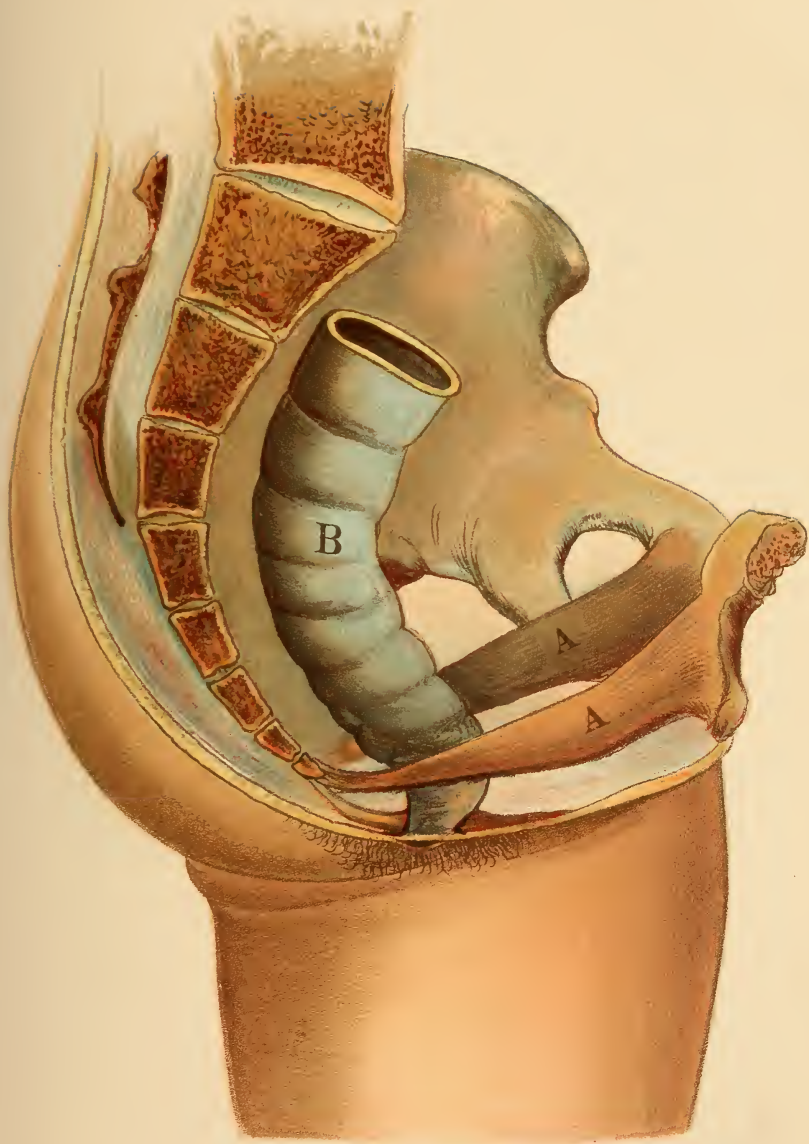


PLATE I. - LEVATORES ANI, SIDE VIEW.

This is what it costs in suffering to walk on two feet instead of four; and yet none of us have any desire to be a man-monkey, an anthropoid ape, or a chimpanzee; and surely none of us would be willing to commence stubbing around on our hands and feet in order to escape the pains and infirmities of our civilization, distressing as they frequently are.

PROTRUSION OF THE BOWELS.

OTHER names : prolapsus ani ; invagination of the rectum.

This is a derangement in which the *rectum*, or part of it, protrudes through the *anus* and has to be pushed back with the fingers. There are three forms of the disease, namely : —

First. Protrusion in which a part of the mucous membrane comes down.

Second. Protrusion in which part of the rectum, including its membranes and muscular coats, comes down; and in this variety the lower part of the *rectum* is turned inside-out like a glove or stocking.

Third. Protrusion in which the upper part of the *rectum* slips down through the lower part and protrudes several inches. This is by far the most serious form and is accurately shown in Plate II.

Causes. — The disease is very frequent in childhood, and in almost all cases it is brought on by diarrhœa or dysentery, or by the injudicious use of physic.

Symptoms. — After severe straining at stool, folds of the bowel, large or small according to the severity of the case, remain on the outside and have to be forced back with the

fingers. In most cases the protrusion involves only a part of the membrane or lining of the *rectum*; and the bunch is not larger than three or four grapes; but in other and severer troubles of this nature, part of the bowel protrudes, and the tumor is larger, and harder to work back.

In still another form, and by far the worst form, too, the entire upper part of the rectum falls down through the lower part and protrudes two or three inches.

Sometimes the tumor is of a very different shape from that shown in Plate II, and is nearly the form of a pineapple, the large end being down. It is only in chronic cases — those that have been years in developing — that the folds of the rectum have become so enlarged as to give the tumor the form of a pineapple.

Treatment. — Two very important things are to be done in every case of protrusion of the *rectum*.

First. The protruding parts must be treated so as to reduce as much as possible the irritation and congestion; and if this is properly done it will probably prevent further protrusions.

Second. The protruding folds must be pushed back as soon as they have been properly treated.

After the tumor has been cleansed with a soft cloth the following should be applied freely: —

Tannin, two drachms,

Water, four ounces.

Mix and apply every time the bowel protrudes. In stubborn cases an ounce of the same may be injected three times per day. It will not cause much if any smarting, but the child will want to pass it off immediately.

The following is also very valuable in the treatment of protrusions occurring in children: —



PLATE II.—TYPICAL CASE OF PROCIDENTIA RECTI.



Powdered alum, a heaping teaspoonful,
Water, a half pint.

Mix and apply freely to the protruding parts every time they come down.

As soon as the tumor is treated in this way vaseline should be applied in order to make it slip back easily, and there is not a doctor in Christendom that can work back the wrinkled folds of the bowel any easier than the average mother.

It is not an unusual thing for children with severe diarrhœa to have protrusion of the *rectum*; it is by no means serious; there is nothing to occasion fright or anxiety; but the quicker it is pushed back the better, and the less effort it will require to do it. While the tumor is being worked back the child should be pacified or amused in some way, if possible, as struggling and screaming will force the parts downward and make the task of pushing them back more difficult.

The more the bowel comes down, the more congested, thickened, and irritable it is liable to be; and, consequently, the protrusions are apt to become more and more frequent, while the protruding folds are equally apt to get a little larger; and for these reasons prompt and thorough treatment is always advisable.

The cause of the trouble, whatever it is, should be removed as soon as possible, as in every other disease. If it is from diarrhœa, — and it almost always is, — the treatment advised for cholera infantum, p. 44, should be followed until the bowels are restored to their healthy and natural condition.

In almost every case the patient is inclined to linger on the seat or vessel and strain a great deal after the stool has all been expelled; and it is usually the straining after

stooling that forces the rectum, or part of it, out; and it is therefore important to lift the child from the seat as soon as the stool has been passed, even if he utters a very loud protest, as he usually does.

Should the case be so bad, on account of neglect or poor treatment, that all these measures fail, the next thing is to adopt a more radical plan of treatment so as to prevent the protrusions entirely. This consists in constructing a temporary closet seat for the child, and making it so high that the little fellow stands almost straight up while the bowels are moving. It may be best to commence with a seat that will give a half-erect position, as such a seat will be less liable to displease the patient than a higher one; but if it should fail, a higher one must be used, remembering that the nearer his position approaches the perpendicular, the less will be the tendency of the bowel to protrude; and that the high seat alone will cure almost every case, if made so the child will be almost in a standing, instead of a sitting position. The writer has used the high-seat treatment for twenty-eight years, including seven years in the Boston Clinic, and has never known it to fail.

When the disease exists in adults it is usually from bad treatment in childhood, or from piles; if from the latter, they should be cured as soon as possible; and if the protrusions continue, the treatment should be the same as for children, the seat being so high that the man has to stand almost erect.

There is one particular difficulty attending all cases of protrusion of the *rectum* or its membranes; one that is terribly aggravating; and it is this: The patients when at stool, like a great many ministers when preaching, are not willing to quit when they get through.

CASE I. (Protrusion of the Rectum.)

Belle D., age 3, became a patient of mine in 1872. The protrusions in this case were bad, and included part of the *rectum* in addition to the mucous membrane.

The treatment for the diarrhœa that brought on the trouble was a success, but the protrusions continued for weeks, at each movement of the bowels, until the high seat was adopted. The position of the child, which was almost erect, prevented further protrusions; complete recovery followed within a few weeks; and there was no more use for a two-story seat.

CASE II. (Protrusion of the Rectum.)

George Parker, age 2 years and 8 months, was brought to the Boston Clinic, in 1893, with protrusion of the *rectum*, the entire lower part coming down at every movement of the bowels. The case had been under treatment for about two months and nothing had yielded much beneficial results. I immediately began bathing the protruding parts with the following:—

Tannin, two drachms,

Water, eight ounces.

Mix and apply freely to the protruding membranes after each movement of the bowels. This was kept up for several days and prevented, to some extent, the protrusions, but the child was inclined to sit on the seat and strain and strain after he was through stooling; and his mother, notwithstanding my advice to the contrary, permitted him to exercise his own sweet (?) will; and in this way the treatment partially failed. A high seat was finally made so the youngster was compelled to stand almost erect when stooling, and in this position his bearing-down effort, though long and determined, could not force the bowel out. Com-

plete recovery followed within a few weeks, and the high seat was abandoned.

CASE III. (Complete Protrusion of the Rectum.)

John McConnell, Revere, Mass., age 44, entered the Boston Clinic in January, 1893, stating that he had piles and falling of the rectum. I here copy from my clinic "Record of Cases" the following, word for word: "This is the worst case of prolapsus of the rectum that I have ever seen. The protruding bowel is as large as an average pineapple and somewhat similar in shape. The trouble began 12 years ago and has never yielded in the least to any treatment."

In this case there was no apparent cause for the protrusion except the existence of two or three small pile tumors of a bluish color. Although it did not seem possible for such insignificant tumors to cause the protrusion, I destroyed all of them before he left the table, filling each pile sack, as I always do, with *phenic-acid* solution. I then had a closet seat made so high that he was virtually in a standing position during the movement of his bowels. The protrusion never occurred once after the use of the high seat was commenced; the cure was permanent, the high seat being discontinued after two or three months.

FISTULA IN ANO.

In this chapter it is proposed to describe carefully, and accurately, yet briefly, the six different forms of fistula that are known to exist; to show their most frequent causes; the manner in which they usually come on; the best means for arresting their formation; and finally, the surest, easiest,

quickest, and least painful method for effecting a complete and permanent cure.

The word *fistula* is purely Latin, and means a pipe. *Fistula in ano* is a pipe, or artificial canal, one end of which is usually within an inch of the *anus*, and called the *external opening*, while the other end is either in the *anus* or *rectum*, and called the *internal opening*. It is customary to call all fistulous openings occurring in this locality *fistula in ano*, though this is not strictly correct, for a fistula with its internal opening above the *anus* is in the *rectum*, and is properly *fistula in recto* instead of *fistula in ano*.

From the foregoing, it is obviously impossible for a man to know what kind of a fistula he has, until an examination is made and the internal opening located; and it may be interesting for every one to know that the higher the internal opening, the more difficult and tedious the case, and therefore, that *fistula in recto* is more to be deplored than *fistula in ano*.

Causes. — The direct cause of almost every fistula is an abscess in the vicinity of the *anus*, but as it is often impossible to know the cause of the abscess, it is equally impossible to tell the *real* cause of the fistula. It is very probable, that in most cases, the abscess arises from an imprisoned clot of blood, known and described as a *thrombotic* pile tumor, as this kind of a clot is really lifeless matter — a foreign body in the flesh — and peculiarly liable, sooner or later, to cause an inflammatory abscess and, finally, a fistula.

To avoid the danger of a fistula, with all its terrible pain and uncleanness, every *thrombotic* pile should be destroyed as soon as it makes its appearance. Fruit seeds and small fragments of bones, swallowed by rapid eaters, who do not

properly chew their food, often become lodged in the *anus* or *rectum* so as to cause an abscess, and in nineteen cases out of twenty, whatever causes an abscess in this region, also causes a fistula.

In 1876, Mr. Alexander Adams, of Youngstown, Ohio, came to my office, with a bad fistula, from which he had suffered for several months, and on account of which, he had been attended by the best surgeons of that city. He was then in the flower of his age, a very active business man, and a rapid eater. After finding that he had a complete fistula, I inserted a rectal speculum and saw the end of a bone projecting, the eighth of an inch above the inflamed flesh. I grasped it firmly with a pair of goose-teeth forceps; carefully worked it loose and extracted it, causing, of course, some pain. The bone was a piece of a small rib, — probably a lamb's rib, — and was an inch and a quarter in length. It was broken almost in two in the middle, and was evidently covered with flesh when swallowed, as the gentleman remembered having swallowed a piece of meat, bone and all, a few months before.

Having removed the bone, I operated upon the fistula with an *elastic cord*, and complete recovery followed within three weeks, the patient attending to his usual duties during the treatment.

There are six kinds of fistula affecting the *anus* and *rectum*, and about all of them have come under the writer's observation, though most of them are exceedingly rare. They are as follows: —

First. *Complete fistula*, in which there is one external, and one internal opening, this form being by far the most frequent, and, happily, the easiest to operate upon, and also the easiest to cure.

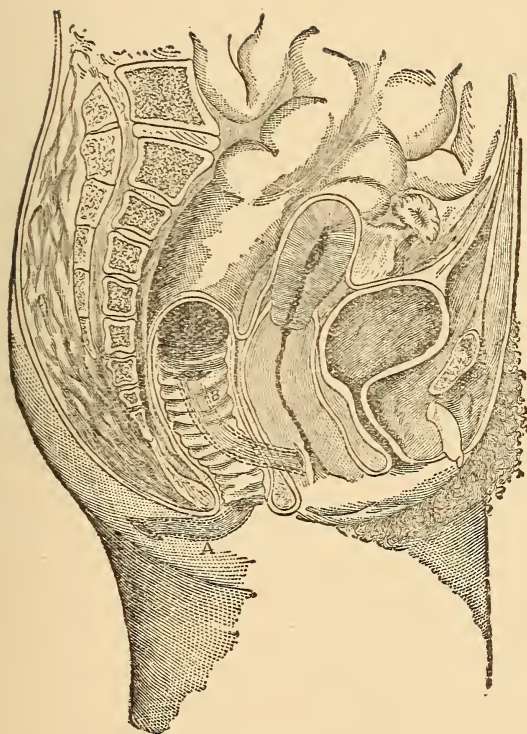


FIG. 2.

- A. Complete External Fistula.
B. Recto-Vaginal Fistula.

Second. *Blind, internal fistula*, in which there is but one opening, and that is within the *anus* or *rectum*. This form is rare, except when found as the result of an unsuccessful operation upon a complete fistula; and unless the passage is carefully explored, by means of a good speculum, illuminated with an electric lamp, it is liable to be overlooked.

Third. *Blind, external fistula*, in which there is but one opening, and that is on the outside. This is probably the rarest of all the forms known to specialists, and yet, more than half the cases examined by doctors in general practice are thought by them to belong to the *blind external* class, simply because they have not had enough experience to know how to trace the crooked canal into the *rectum*. It is true that the internal opening may be closed for a few days, so as to render the passage of a probe into the *rectum* impossible, but almost all fistulous openings observed on the outside connect with the rectum. It was said in ancient times that "all roads led to Rome." With almost equal truth, it may be said to-day, that all fistulous openings occurring about the *anus* lead, either directly or indirectly, to the *rectum*.

Fourth. *Complete, internal fistula*, in which there are two openings, both being inside. This form is so rare that it is seldom seen, even by a specialist.

Fifth. *Complete, external fistula*, in which there are two openings, both being on the outside, and connecting with each other but not with the *rectum*. The writer has successfully operated upon several cases of this kind, although they are comparatively rare.

Sixth. *Horseshoe fistula*, in which there are several openings on the outside, some of which connect with the

rectum, and the various pipes circle around the anus, so as to give the connected canals the appearance of a horseshoe. Figure 3 represents a horseshoe fistula and shows the direction of the pipes, their relation to each other, and how they connect with the *rectum* by a single canal. In order to effect a perfect cure in such cases, a great deal of time, patience, and skill are necessary.

PERSONS MOST LIABLE TO FISTULA.

THE idea prevails extensively — and a very erroneous idea, too — that persons with consumption or a strong hereditary tendency to that disease, and also persons suffering with scrofula or inherited tendencies to that affection, are peculiarly liable to *fistula in ano* and *fistula in recto*.

The facts are that any person, however strong and vigorous, and however pure and healthful the blood, will have a fistula whenever the conditions are such as to develop an abscess near the *anus*; and that fistula furnishes no evidence whatever of a primary blood disease; and further, that it is no disgrace to be afflicted with a fistula; but it is a burning shame and disgrace to allow it to continue, because it is a distressing and loathsome disease at best, and in a great measure unfits its victim for the ordinary duties and responsibilities of life.

As piles, especially those of a *thrombotic* type, have strong tendencies to the formation of abscesses about the *anus*, it is obvious that persons with *piles* are peculiarly liable to have *fistula*.

A thorough study of fistula with its history and causes, and an experience of more than a quarter of a century in the treatment of the disease, warrant this broad statement. With the exception of those afflicted with piles, one person is about as liable to have fistula as another, those suffering with piles being, of course, the most liable. All classes are equally liable to swallow stones of fruits, or fragments of bones covered with flesh, and these may become secreted in the folds of the *rectum*, causing an inflammatory abscess and fistula.

Symptoms. — The commencing symptoms of a fistula are, pain, swelling, great tenderness, and, finally, redness of the skin at the central part of the swelling which is usually within an inch of the anus and on the right or left side. As the swelling increases, the pain becomes more and more intense; there is loss of appetite; considerable fever and now and then a chilly feeling; a soft, fluctuating condition is finally observed about the centre and highest part of the swelling, and the fully formed abscess either breaks or is lanced, when a copious flow of *pus* affords instant relief.

For weeks, if not months, there will be an abundant flow from the abscess, as the cavity is large, and its pus-secreting capacity must be equally great.

As the pond of a creek is wide and extensive during a flood, so is the cavity of an abscess when it first opens; as the pond after the flood usually becomes a very small, zig-zag channel through a bed of sand, gravel, and clay, so the cavity of the abscess, after the flood of *pus*, is made smaller and smaller by the healing process until only a little pipe not larger than the lead in my pencil remains, and like the channel of the creek, is usually crooked. In forming the

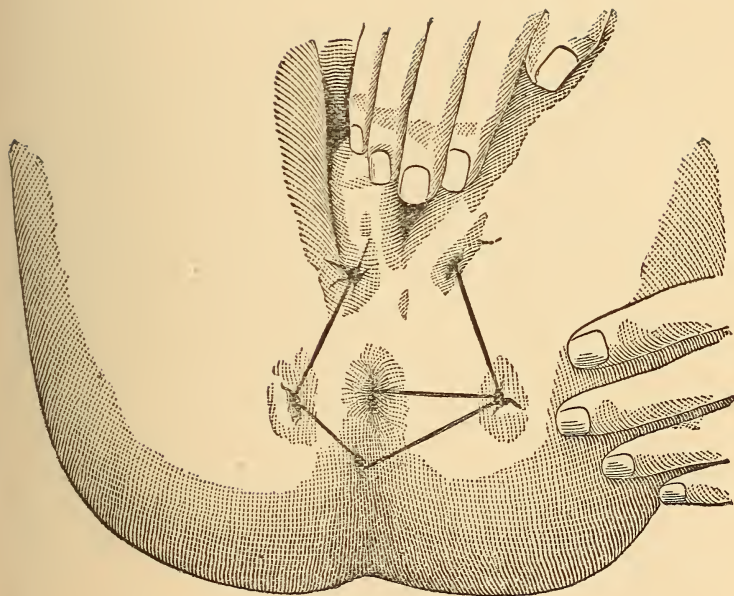


FIG. 3.

Showing 5 Fistulas; how they communicate with each other and how one enters the rectum.

channel of a creek the water takes the direction in which there is least resistance; the *pus* does the same thing, and therefore both stream and fistulous pipe are crooked.

By the time the cavity of the abscess is filled up and the artificial passage reduced to a small pipe, the discharge becomes thin and watery, the amount in twenty-four hours being small, and yet large enough to soil the linen, irritate and inflame the skin, and render frequent bathing necessary. This is frequently the settled condition of a fistula within five or six months after it first makes its appearance.

Sometimes they have a small external opening that will not allow a free flow of "matter," and such cases of fistula are usually painful much of the time.

Many of them will close up for days or even weeks, causing the patient to flatter himself that he is cured, especially so if some foolish doctor has been trying the worthless and pernicious plan of injecting caustic solutions into the pipe.

Whenever a fistula closes externally, from whatever cause, it should be regarded as a smouldering volcano that is liable to make serious trouble at any time, and it is important to know that anything causing the pipe to heal on the outside has a dangerous tendency to make it open in a new place, and as the old pipe usually opens again sooner or later, a double fistula is the result.

When the fistulous pipes are large, as they sometimes are, offensive gases, and frequently feces also, are discharged through the opening; but it is comforting to know that this miserable form of the disease is one of the easiest to operate upon, and therefore one of the easiest to cure, as a general thing.

Other things being equal, a fistula with a pipe somewhat large is much less painful than one with a small pipe ; the discharge, though a little greater, is more uniform, and the fistula is much less liable to close, by healing at one or two points, so as to cause the confined matter to force its way through sound flesh and make a crooked channel.

When a wound heals, all the parts involved in the scar are hardened ; are more like cartilage or gristle than natural flesh, and as pus, in forcing its way out of a cavity, always takes the direction in which there is the least resistance, it works round the *scar tissue* so as to pass through soft flesh, and it is through such unvarying principles that a fistulous canal changes its direction every time it heals in any part of its course, and breaks out again.

Every fistula is liable to become more and more crooked every year ; every new turn a pipe takes, the difficulties of curing the patient by an operation of any kind are increased, and when it gets very crooked a successful operation with the knife is almost impossible.

Almost every disease is in its most simple and easiest form when it first develops ; this is especially true of *fistula in ano* and *fistula in recto* ; and, therefore, no fistulous pipe should be allowed to grow *old* and *crooked*.

Another serious change that time and neglect are liable to make upon fistula is, an increase in the number of openings ; and in order to avoid crooked, distressing, and numerous pipes, every fistula should be cured as soon as possible by destroying the miserable, pus-secreting canals.

By having a fistula properly treated before perplexing complications arise, a whole life of suffering from a loathsome disease may be prevented.

Treatment. — Seven or eight different methods for operating upon *fistula in ano* and *fistula in recto* have been described by authors; but as all of these are worthless except the *elastic cord* and the *knife operation*, it is not proper to describe them here, as it would only confuse the reader. There is one style of treatment, however, that has been used a great deal by doctors in the general practice; that has done a great deal of harm, and is liable to do more; that must be condemned. It is known as the "injection method" and consists in filling the pipe with an astringent or caustic solution. A great many cases cured at the Boston Clinic within the last seven years, had been treated for months or years by injections before coming to the clinic; some of them had paid out a great deal of money; none had been benefited in the least; and half of them had been injured by having their fistulous openings multiplied. The fluid injected is intended to inflame the canal so as to make it heal; and it often succeeds to the extent of causing a great deal of trouble by healing the pipe in places; and in doing this pockets of pus are established between the points healed; the imprisoned pus is liable to become the source of several abscesses; and in this way two or three new fistulas may be caused by one injection.

The amount of harm that this pernicious treatment has done by partially healing the pipe and causing a number of new openings is hard to estimate. Every effort should be made to keep the pipe open until it can be destroyed in the proper way. There is no palliative treatment that amounts to much, and the quicker an operation is performed for thorough cure the better.

The author's favorite method for curing *fistula in ano*

and *fistula in recto*, and the one that he has employed almost wholly for over a quarter of a century, is to cut the fistulous pipe out with an *elastic cord*; and his success in operating this way has been so favorable that the failures in twenty-six years can be counted on the fingers of one hand, with fingers to spare.

The operation is as follows: A soft silver probe having an eye in one end large enough to carry the cord, is carefully passed into the fistula until it enters the *anus* or *rectum*; then the index finger of the other hand is passed into the *anus* and brought in contact with the end of the probe; as this needle probe is very soft, it is easily bent by the tip of the finger and brought out at the *anus*, drawing one end of the elastic out with it, while the other end is left hanging out through the external opening of the fistula. One end of the cord is then put through a hole in a rubber button; the other end is put through a different hole of the same button; both ends are brought together and tied in three hard knots. Within a week the cord makes considerable progress in cutting its way out through the flesh, and in doing so becomes slack; it is tightened up so as to cut again, as before, and so on every week until it is entirely out.

The *elastic cord* consists of a thread of Indian rubber covered with silk, and if the patient wishes to attend to business while the cord is doing its work, the smallest elastic that is made is used instead of a larger one, and even if it is tied as tightly as it will bear without the danger of breaking, it causes but little if any pain.

If, however, the patient wants to get through as soon as possible, even if the treatment is more severe, a much larger and stronger cord may be used, and in that case the

work of cutting the fistula out will be accomplished in one-third of the time required for the small one, the cure being equally thorough in each case.

As this is a method that never fails when properly used, it may be interesting for every one with a fistula to understand the principles upon which its universal success depends.

In the first place a soft probe is always used, one that bends or doubles up readily when encountering an obstruction, and it is impossible for such a probe to enter the *anus* or *rectum* without following the fistulous pipe, as it could in no way be forced through the sound flesh. For this reason the *elastic seton* comes in direct contact with every part of the diseased and pus-secreting pipe, and in doing so develops an inflammatory condition that destroys it. Its destruction is accompanied and followed by the healing process that is kept up until the *seton* is cut entirely out. When the flesh and skin are divided in this way, there is no gash or gaping wound left, as one might suppose, because the healing follows up the cord so closely that by the time it has cut through all the structures the wound is about healed up, and the patient is practically well.

ADVANTAGES OF THE ELASTIC CORD IN FISTULA.

FIRST. It always cures, when properly applied.

Second. The relation of the different structures to each other is not changed in consequence of being divided by the cord, because the healing and closing process keeps up with the *elastic cord* in its passage through the flesh.

Third. After a person is cured by the cord the parts involved are in their natural place, their condition is natural, and the feeling of the individual is as natural as in childhood.

Fourth. The application of the cord by an experienced rectal surgeon causes but little if any pain, is completed within two or three minutes usually, and the use of ether is not necessary one time in a hundred.

Fifth. The *elastic-cord treatment* is always bloodless, is free from danger, doesn't confine a patient to his room, allows him to attend to his business as a general thing, and the fistula never breaks out again because all the pipe is destroyed.

Sixth. As the healing process caused by the cord keeps up until the wound is entirely healed, the patient is not left with a *fissure* of the *anus*, which is a very painful and troublesome ulcer.

Seventh. The *sphincter ani* muscles — the muscles that close the *anus* — are not injured by the cord operation, although these muscles may be completely severed, and a patient will not lose control of his bowels even if a half dozen fistulous pipes are destroyed in this way, one at a time.

Eighth. With the *cord*, there is no blood-blinding operation, no fistulous canal to hunt in a sea of blood, no wound to sew up, no deformity, no *stricture* of the *anus*, no impairment of the muscles that close the *anus*, and the surgeon avoids the deplorable, and frequently hopeless, task of passing a *straight* director through a *crooked* hole, as the pipe is almost always crooked.

Ninth. As the probe used in putting in the cord is soft, it will easily bend so as to adapt its curves to the direction

of the pipe, and will reach the *anus* or *rectum* by following the winding road instead of going "across lots," and in this way no elbow of the pipe is cut off by forcing the needle probe through sound flesh, leaving a part of the pipe with a quantity of imprisoned pus to become the source of a new fistula.

Tenth. One of the greatest blessings of the *elastic-cord method* to the world is, that millions who would not submit to the knife operation, are anxious to be cured by the cord as soon as they learn how quickly and easily it is applied; that the fistula is always cured, and that there is no danger and but little if any suffering attending its use.

For these reasons the first man into whose fertile brain the idea of curing fistula with a *string* gained admission; and who gave the plan to the world—heaven bless his name and ashes—is worthy of a higher and grander monument than that of Bunker Hill.

THE KNIFE OPERATION IN FISTULA.

As previously stated, there are only two methods for the cure of *fistula in ano* and *fistula in recto* that are worth considering. One, which has been fully described, consists in dividing all the flesh and skin, between the pipe and the *anus*, with an *elastic cord*; the other consists in cutting through the same structures with the *scissors* or *knife*, and is known as the *knife operation*.

Everything that is uniformly successful in medicine or surgery rests upon some fixed and definite principle, or principles, and it is interesting to observe that the two recognized methods for curing fistula depend upon a single

principle of vital importance—the *division of all the flesh lying between the external opening of the fistula and anus.*

The *knife operation* is the one employed principally in all the hospitals; the one taught in the colleges; the method usually advocated by authors of medical and surgical works; but the rectal specialists in the various cities almost all prefer the *elastic cord*, and it is probable that four-fifths of the cases that are cured at all, are cured in this way.

Plate III shows the manner in which the knife operation is performed. The patient is put under the influence of ether, and a silver director, with a groove running its whole length, is passed into the outer opening of the pipe; when it reaches the inner opening and enters the rectum, an index finger—the one most convenient—is passed into the bowel and crooked, so as to catch the end of the director and bring it out at the *anus*. A suitable knife is then placed in the director with its edge turned towards the flesh, and pushed along the groove until it cuts through all the structures lying above the instrument, including *veins, arteries, nerves, muscles, and skin.*

The next step consists in spreading the lips of the wound apart and scraping out the pipe with a sharp instrument called a *curette*, which is simply a “scraper,” the term *cureting* being a refined and dignified word for “scraping.”

The wound is then packed full of antiseptic cotton, so as to keep its sides separated and make it heal only from the bottom, and also to prevent blood poison. The management of the case after the operation is of the utmost importance; the opening has to be watched and dressed for weeks; the rectum must be washed out with injections of

warm water after each movement of the bowels, so as to keep the wound clean; a great deal of watchful care is necessary, to prevent the sides from uniting too soon, so as to leave an opening at the bottom; the opportunities for making mistakes are numerous; and failures are frequent.

In justice to the *knife operation*, however, this may be said: If such operations were performed only by *rectal surgeons*; by men of special ability and fondness for such work; who have devoted their professional lives to the study and treatment of diseases of the rectum; who are skilled in operating and know the importance of all the details involved in the after treatment; failures would be comparatively few; but, unfortunately, this is not the situation, as most of the cases in the hospitals are operated upon by "omnibus" surgeons—surgeons for everything and everybody—who have had but little experience in rectal surgery, and therefore are not skilful operators. For these reasons, it is by no means strange that persons undergoing operations for piles or fistula in the hospitals are the most frequent victims of bad practice, often being left in a deplorable, if not hopeless condition.

THE DISADVANTAGES OF THE KNIFE OPERATION.

FIRST. It fails in a multiplicity of cases where the *elastic cord* would succeed.

Second. It necessitates the use of ether or chloroform, which some persons cannot take with safety.

Third. It is a severe operation at best, and is attended with more or less danger.



PLATE III.-TYPICAL CASE OF FISTULA IN ANO WITH OPERATION FOR SAME.

Fourth. As it is a mathematical impossibility to pass a straight director through a very crooked pipe, it is equally impossible to cure a fistula having such a pipe by the *knife operation*.

Fifth. The *knife* cannot be used until a grooved director is passed through the pipe into the rectum; and, as such a director is too firm to bend and adapt its curves to the direction of the pipe, it is often impossible for it to enter the *anus* or *rectum* until it is forced through the sound flesh; and in such cases the operation always fails.

Sixth. With the knife, the structures are all cut through at once; they are hard to keep in their natural relation to each other while healing; and the patient is often left with an unnatural feeling and considerable deformity, even if the operation is otherwise successful.

Seventh. The *knife operation* confines a patient to his room for weeks, if not months; his attendants have to be careful and especially skilful; and the chances for serious mistakes in the after treatment are so great that failures are frequent, even if the operation is properly performed.

Eighth. After the grooved director is passed through the pipe into the rectum, a *butcher* can do the cutting as well as a *surgeon*; it is therefore obvious, that all the skill required for either *cord* or *knife* operation, consists in following the meandering pipe into the *anus* or *rectum*; and it is ten times easier to do this with a flexible, snakelike probe, that readily turns when the pipe does, than it is to go through such a canal with a stiff, unyielding director; and therefore the *knife* operation is much more difficult than that of the *cord*, and much less effective, as every difficulty that is added to any kind of an operation increases the chances for failure.

Ninth. In the knife operation the muscles that close the *anus* are often injured to such an extent that the patient cannot control his bowels, and is therefore compelled to wear a napkin as long as he lives. Such a deplorable condition never follows operations with the *elastic cord*, even if a half dozen fistulous pipes are destroyed, because the structures unite almost as fast as they are cut, the muscles being left in a natural and perfect condition.

Tenth. The after treatment in the *knife operation* is a source of anxious care for weeks, if not months, and sometimes the wound will not heal at all; while there is no after treatment necessary when the *elastic cord* is used except to tighten it up once per week; there are no chances for a failure; the patient avoids the expenses of a hospital; has no use for a nurse; can attend to his business as a general thing; the structures unite almost as rapidly as they are cut through; their relation to each other is unchanged; and the cure is perfect.

Eleventh. One of the greatest objections to the use of the *knife* in curing fistula is this: It is regarded as a *bloody*, a *dangerous*, and a *dreadful* operation by the people; they are constantly hearing of failures or deaths from such operations in the hospitals; there is not one in a hundred that will endure it; and the worst of it all is, they have become frightened; are distrustful of all methods for curing the disease; and ninety-five per cent of those with fistula are jogging down life's road with their loathsome afflictions, unaware that the *elastic string* is an *easy, simple, safe, sure, and bloodless* remedy for *fistula in ano* and *fistula in recto*.

CASE IV. (Fistula in Ano.)

A. W. Fulton, merchant, Walpole, Mass., age 38, entered

the Boston Clinic in January, 1893, with a fistula of the anus from which he had suffered for years. He stated that it did not go into the rectum, that the pipe had been examined and probed by several distinguished surgeons, and all of them said it did not enter the rectum. It took me but two or three minutes to trace the pipe into the rectum, and as soon as this was done I put in an elastic cord; secured it by three hard knots; and he returned to his duties in his boot and shoe business. The cord soon cut its way out, the flesh healing behind it, so by the time it was out the fistula was practically well. Mr. Fulton attended to his store every day and was sound and well within a month.

CASE V. (Fistula in Ano.)

Mr. Newton M., a retired business man, age 63, came to the Boston Clinic, May 29, 1893, stating that he had been suffering from a serious bladder trouble for a number of years; that he had been examined by several distinguished surgeons, and that they had all failed to discover the cause of his trouble. He had a constant desire to pass his water; could not walk three blocks without wanting to find a water closet; and had to get out of bed a dozen times every night. As he never had had an abscess; and as no doctor had ever been able to find any trouble with his rectum, it seemed scarcely worth while to hunt for a fistula, and yet I looked for one and I found it. I put in an elastic cord, secured it with three hard knots; it cut out in ten or twelve days; the cure was quick and perfect, and the bladder trouble, strange as it may seem, ceased forever. There were many strange things connected with this case.

First. The water trouble had existed for years and no one had been able to find its cause.

Second. The fistula was an inch from the anus and on the opposite side from the bladder.

Third. There was no discharge of matter from the pipe; no red point indicating its opening; it seemed nothing but a small, dry hole in the skin; and there never had been an abscess.

Fourth. The introduction of the cord relieved the bladder irritation immediately, and it never returned.

CASE VI. (Fistula in Ano.)

Charles L. Foss, electrician, Claremont, New Hampshire, age 45, entered the Boston Clinic in 1893, with a fistula that had caused him much trouble and anxiety. As his business would only permit him to remain in the city a short time, he wanted to be cured as soon as possible. For this reason I put in the largest and strongest elastic cord I had; it cut out within five days; he returned home on the day it came out, and he was well within two weeks. He travelled about the city and had a good time every day while the cord was doing its work.

CASE VII. (Fistula in Recto.)

Benjamin F. O'Connor, 22 Morris St., Lynn, Mass., came to the Boston Clinic in 1894, with a terribly bad *fistula in recto*. He had suffered for several years, and had been punished a great deal by a doctor who had been trying to cure him by the injection method. The case was one of the most difficult, as the probe, when introduced into the pipe, entered the rectum so high that it was hard to reach the point with the index finger and bring it out at the anus, but I succeeded in getting it out, and put in a strong elastic cord. It took it six weeks to cut out, but the healing process followed the cord so closely in its passage through the flesh that the patient was practically

well when the cutting was done. Mr. O'Connor worked at his trade most of the time while being cured.

CASE VIII. (Horseshoe Fistula.)

Mr. V. D., a fruit dealer, age 40, entered the Boston Clinic in 1894, with five fistulas, a form of the disease termed a "horseshoe fistula." He had undergone the knife operation three times at one of the leading hospitals of the city, and every one of them failed. I operated on all the fistulas, one at a time, the case being quite similar to the one shown in Fig. 3.

Every fistula was cut out with the elastic cord; the healing was perfect; not one of the operations failed; he attended to his fruit store during the six months he was under treatment; and is now entirely well. I saw a very similar case in a London hospital in 1894—a case in which the knife operations had also failed.

CASE IX. (Double Fistula.)

J. I. Nickerson, house builder, 592 Sixth St., South Boston, age 56, entered the Boston Clinic in June, 1897, with a double fistula that had been making his life miserable for several years. One was treated immediately with the elastic cord; it cut out within two or three weeks; it healed almost as fast as it cut out; and the second fistula was operated upon in the same way. Both healed promptly, and he was entirely well within six weeks. He worked at his trade while being cured.

CASE X. (Fistula in Ano.)

W. F. Sinclair, South Gardner, Mass., arrived at the Boston Clinic in January, 1898, and was suffering with a painful fistula. It only required two or three minutes to pass the soft probe into the rectum and put in the elastic cord, the operation being almost painless. He came back

to the clinic twice to have the cord tightened; it soon cut out; and he was well within three weeks.

CASE XI. (Fistula in Recto. A terrible case.)

C. P. Stone, 45 Walton St., Fitchburg, Mass., age 52, came to the Boston Clinic in December 1898, with a very bad fistula in recto, from which he had suffered for twenty-six years. He stated, that about 1872 he underwent an operation for the fistula; that it soon broke out again; and had pained and annoyed him ever since. The pipe was desperately crooked; was very hard to follow; and entered the rectum so high that it was exceedingly difficult to reach the probe with the end of the front finger and bend it downward, so as to bring it out at the anus, but I finally succeeded, and in this way put an elastic cord through the long and crooked pipe. The previous operation, as unsuccessful knife operations always do, made this case tedious and difficult, because the scar tissue, resulting from the cutting done in 1872, was so hard, that it took ten weeks for the cord to pass through it. Every fibre of the external and internal muscles of the anus was divided by the cord, and if it had been done with a knife, a man's fist could have been passed into the rectum, but as the healing almost kept up with the cutting, his power to control the bowels was not impaired. Mr. Stone is now well.

CASE XII. (Fistula in Ano.)

John D. Turner, a commercial traveller, 350 Tremont St., Boston, entered the Boston Clinic in 1895, with a very distressing fistula, from which he had suffered for a long time. It took only two or three minutes to pass a probe through the pipe into the rectum, and put in the elastic cord and tie it. It cut out in about two weeks, Mr. Turner attending to his usual business in the meantime. By the time

the cord came out the healing was almost done, and he was well within three weeks from the time he first entered the clinic.

RECTO-VAGINAL FISTULA.

IN this form of fistula there is an opening between the *vagina* and *rectum*. The opening may be merely in the edge of the *vagina*, and may also be in the edge of the *anus*, and yet, where the two passages are connected by a fistulous pipe, it is always called *recto-vaginal fistula*.

Causes. — In almost all cases the disease is caused by an abscess; but instead of its breaking or being lanced on the outside, it either breaks in the vagina or has to be lanced within that cavity.

Symptoms. — It commences as a swelling, between the *anus* and *vagina*; is characterized by pain and tenderness, both gradually increasing; fever, redness of the skin, and all the symptoms of an abscess, until a copious flow of pus and complete relief from pain announce that an opening has occurred within the vaginal walls. On the other hand, the pain may be so great as to render lancing necessary. Either one of the three following symptoms will afford almost positive evidence of a *recto-vaginal fistula*:

First. The presence of *fecal* matter in the vagina, as such matter is sure to reach that passage if the opening connecting it with the rectum is large.

Second. The escape of gases having a *fecal* odor from the vagina.

Third. A constant but moderate discharge of pus from the vagina, irritating that passage and inflaming the adjacent skin more or less.

Treatment. — The best possible method of cure is to cut through all the structures lying between the opening within the vagina and the anus, always using the *elastic cord* as advised in all other operations for fistula. The author has often found it necessary to cut through almost the entire perineum or bridge between *anus* and *vagina*, but if the cord is not made very tight, the cutting will be so slow that the healing will keep up with the cord, and there will be little, if any wound, after the structures are all divided. There is one form of *recto-vaginal fistula* in which it will not do to divide the flesh and muscles between the two passages either with the *elastic cord* or with the *knife*. In such cases there is a mere window, as it were, between the front passage and the rectum; the opening is often caused by the difficulties of childbirth, especially from the use of instruments.

CASE XIII. (Recto-Vaginal Fistula.)

Miss Annie E. Thompson, 36 First St., Lowell, Mass., age 34, applied for treatment at the Boston Clinic, May 5, 1897. She had undergone the knife operation seven years before, the fistula breaking out again within a month or two. An examination showed that the fistula opened in the rectum, above all the muscles of the anus, and that almost all the structures between the *vagina* and *anus* would have to be divided.

The *elastic cord* was put in without much difficulty and the case treated exactly as if it had been *fistula in ano*. All of the *sphincter ani muscles* — the ones that close the *anus* — were severed by the cord, but they united so completely that there was no loss of power to control the rectum. She was entirely well within a few months and has been dry and natural ever since.

CASE XIV. (Recto-Vaginal Fistula.)

Mrs. F——, Concord, N. H., age 41, applied for treatment at the Boston Clinic, December, 1897, and was suffering from three fistulas, one of them opening into the vagina. I operated upon all three of them — one at a time — with the *elastic cord*, leaving the *recto-vaginal* operation till the last. Each operation was entirely successful, the *recto-vaginal fistula* causing no extra trouble.

FISSURE OF THE ANUS.

OTHER names: painful ulcer of the anus; anal fissure; rectal ulcer.

The word *fissure* means a cleft, crevice, rent, or crack; and a *fissure* of the *anus* is a crack in the skin, or mucous membrane, or in both; and is usually about where the skin and mucous membrane unite with each other, the lower and outer part being in the skin; and the upper and inner part in the membrane.

Causes. — It is very probable that ninety-nine out of one hundred cases of fissure are caused by constipation in which the stools are large, dry, and hard. Such a stool is liable to tear the skin and mucous membrane in several places at the same time and cause a number of *fissures* similar to those shown in Plate IV.

Symptoms. — The most prominent symptom is *pain*, which is usually severe and out of all proportion to the size and appearance of the *fissure*; and the time at which the distress occurs, affords the patient the greatest evidence of the nature of his affliction. It commences during the act of passing the stool; may continue for a half hour, or a

half day after the movement of the bowels; there is frequently intense agony, confining the patient to his room or bed; and the suffering is greatly aggravated and prolonged by large, hard, and dry stools.

Treatment. — If it were possible to cure a *fissure* caused by constipation, attended with very large and firm stools, it could do but little, if any good, as such stools would tear the skin and membranes again and cause new *fissures*. When the patient adopts the treatment advised in the chapter "How to Prevent Piles, Fistula, and Fissures," and follows it for a month or two, so as to cure himself of constipation, his *fissure* can also be cured, and the cure will be permanent.

The palliative treatment of the disease is of great importance in reducing or preventing the suffering; and if the patient will follow the advice given in the chapter already referred to, the constipation will cease; the bowels will move every day without physic or injections; the stools will be *soft* and *moist* instead of dry and hard; pain will be reduced greatly in severity and duration; and most of the *fissures*, like those shown in Plate IV., will get well without any operative measures whatever. In commencing the palliative treatment of these painful ulcers of the *anus* and *rectum*, there is nothing so important as the avoidance of a hard stool, and, for this reason, the patient should take a free injection of warm water before each movement of the bowels, until the proper treatment of constipation renders such injections unnecessary.

When a patient realizes that eating meat causes constipation; constipation causes hard stools; hard stools cause *fissures*; and *fissures* cause enough pain and physical anguish to destroy all the happiness and prospects of life;



PLATE IV - PAINFUL ULCER (FISSURE) OF THE ANUS.

he is surely prepared to give up forever the pleasures of a meat diet. To hasten the healing process and close the numerous cracks that are often found in the skin and membranes of the *anus*, the following is of great service:—

Zinc ointment, two ounces,
Venice turpentine, three drachms,
Carbolic acid, one drachm.

Mix, and apply it with the front finger every night and morning.

There are four operative methods in general use for the cure of *fissure* of the *anus*.

First. Cauterizing it with a drug or red-hot iron.

Second. Stretching the muscles of the anus with the thumbs, as shown in Fig. 4, the patient being under the influence of ether or chloroform.

Third. Cutting through the floor of the fissure from one end to another with a knife.

Fourth. Making a cut the shape of a V the entire length of the *fissure* so as to remove a V-shaped piece of flesh including it. This is certainly a very radical measure, as the *fissure* is cut entirely out and thrown in the ash barrel.

All of these methods are more or less successful, but the last three are very severe, and the cases that cannot be cured by milder and equally effective means are exceedingly rare.

In the author's early experience with diseases of the rectum he used the knife a great deal, but finally found it was unnecessary.

The method that he has employed for seven years at the Boston Clinic is this:—

First. Remove the cause by curing the constipation.

Second. Make the *fissure* perfectly clean from end to end by wiping it out with a tuft of cotton held by a pair of forceps, being very careful not to make it bleed.

Third. Burn every part of it with the melted crystals of *phenic acid*, which is a painless caustic. It is painless because it destroys the sensation of the part touched for five or six hours.

When this acid is applied the entire floor and edges of the fissures are turned white; it takes on a healthy action and commences to heal, the lower and outside part healing first. One thorough application of the *phenic acid* is frequently sufficient to cure a case, but occasionally it has to be used three or four times.

After the constipation has been entirely overcome so as to insure soft and easy stools, it is moonlight rambles to cure the *fissures* with *phenic acid*, and the writer has never had a case in the Boston Clinic that he could not cure in this way.

CASE XV. (Fissure of the Anus.)

Charles F. Tenney, East Mapleton, Mass., age 50, came to the Boston Clinic in November, 1894, and was suffering from a painful fissure of the anus. I cleaned the ulcer thoroughly with a tuft of cotton so as to remove every drop of pus and mucus and leave it clean and dry, then turned it as white as milk with the melted crystals of phenic acid. The operation was repeated in one week, the application of the drug causing no pain, and the fissure was entirely healed and well within fourteen days.

Comment. — In all cases operated upon with the phenic acid or any other caustic, it is of the utmost importance to have every part of the ulcer thoroughly clean, as the presence of pus, mucus, or any foreign matter is liable to

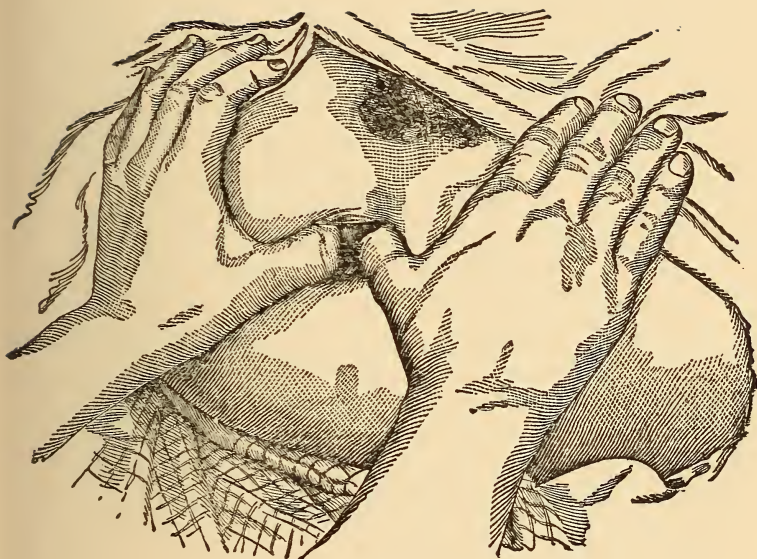


FIG. 4.

Showing the Hospital Operations for Stretching and Enlarging the Anus in order to cure a Fissure.

prevent the full action of the caustic. Should cleansing the ulcer start it to bleeding, it is useless to apply the caustic until the blood has ceased to flow and the ulcer has become perfectly dry. A failure to understand the importance of these little things, as they seem, has caused numerous failures in the caustic operations and afforded excuses for the terribly severe methods employed in most of the hospitals.

CASE XVI. (Painful Fissure of the Anus.)

Dr. Cutler, 532 Tremont St., Boston, escorted a beautiful young lady, Miss M., to the Boston Clinic in 1898, stating that she had a very painful fissure of the anus and had been advised to take ether and undergo the stretching operation at the hospital — an operation similar to the one shown in Fig. 4.

Of course I told her that such severe operative measures were unnecessary; that she could be cured much easier and quicker in another way; that she would not need ether; and would neither be confined to her bed nor room. The fissure was nearly an inch long; the lower and outer half being in the skin, and the upper and inner half in the mucous membrane.

Every part of it was wiped out with a tuft of cotton until it was clean and dry; then it was cauterized with the melted crystals of phenic acid until it was white; a little vaseline was rubbed over it to protect the adjacent parts; and she was told to return in one week. At her second visit to the clinic the lower and outer part of the fissure was entirely healed, while the healing process had commenced in the upper part. I applied the phenic acid again, and in another week she was entirely well. The operations were painless.

PILES.

ANOTHER name: hemorrhoids.

The medical term for this exceedingly common and distressing disease, is *hemorrhoids*, a Greek word meaning a slow *hemorrhage* or bleeding.

Piles are small tumors varying in number from one or two to a half dozen or more situated in the lower part of the *rectum*, and consist of a network of enlarged and multiplied blood-vessels, covered by the mucous membrane of the *rectum*.

This membrane, in connection with the skin and other parts, forms a sack that encloses the numerous veins, arteries, and smaller vessels of which a pile tumor is composed, such a tumor being of a soft, pulpy nature, and full of blood.

Causes. — The predisposing causes of piles are: —

First. Man's erect position that favors, through gravity, the downward pressure of the bowels upon the pelvis and its organs so as to retard, more or less, the upward flow of blood through the veins to the heart.

Second. The absence of valves in the *hemorrhoidal* or pile veins, so as to prevent the blood on its way up the body to the heart from running back.

Third. Heredity.

The predisposing causes of piles we cannot possibly avoid nor mitigate. We cannot walk, as the inferior animals do, with our bodies in a horizontal position; we cannot supply our defective blood-vessels with valves; and

we cannot get rid of our inherited tendencies to the disease, if we have any.

There is scarcely anything in connection with this subject more important than a careful study of the exciting causes of piles, as they can usually be avoided or greatly modified.

The exciting causes of the affection may be stated briefly as follows: Pregnancy; atonic dyspepsia; defective circulation of the blood through the liver; constipation; severe purging, or what is quite as bad, the deplorable habit of taking physic for constipation; sedentary habits, giving rise to indigestion, derangement of the liver, and intestinal torpor; over-eating; the intemperate use of alcoholic liquors; irregular habits; neglect to allow the bowels to move at the proper time; heavy work or lifting in which the bowels are crowded downward; and last but not least, over-work, mentally, through which so much nerve force is consumed that there is not enough left to stimulate sufficiently the many organs of the body, in consequence of which they fail more or less in the performance of their different functions. Some writers claim that piles are almost as common among women as among men. This does not seem to be true, as the author, in counting a thousand cases of piles as they appeared in their regular order in his case-books, found seven hundred and twenty of them were men, and two hundred and eighty were women. His experience in Ohio and western Pennsylvania where he operated upon an immense number of cases in the seventies was about the same as in the Boston Clinic, showing that but little more than one-fourth of all persons applying for treatment were females.

The disease rarely occurs, if at all, during childhood,

and persons under twenty years old with fully developed piles are so rare that even a specialist will see but few cases in a lifetime.

It has been the custom of writers for ages to divide piles into two general classes, *external* and *internal*.

EXTERNAL PILES.

THESE are small tumors situated near the *anus*, and are of two varieties, namely:—

1. Thrombotic.
2. Cutaneous.

THROMBOTIC PILES.

THIS form consists of small, bluish tumors, usually round or oval, near the *anus*; are always covered with skin; never go into the rectum, and each one consists of a clot of blood beneath the skin. The clot has a hard, firm feeling like a bullet; it may be very near the surface, or more deeply seated; may be tender and painful, or almost entirely free from pain and tenderness.

Causes.—As *thrombotic* piles consist of blood clots, they are always the result of a hemorrhage in the *tissues* beneath the skin.

Plate V shows almost the exact appearance of a thrombotic pile.

Symptoms.—Hard lumps, ranging in size from a small bullet to that of a cherry, make their appearance suddenly near the anus, and are usually due to severe straining at stool during which blood-vessels are ruptured and hemorrhage occurs beneath the skin. As blood soon fills the limited

space to which it is confined, it presses firmly upon the mouth of the ruptured vessel and stops the bleeding; the clot, however, cannot get out, and a permanent thrombotic tumor is the result. Tumors of this kind are especially liable to take on an inflammatory action and develop an abscess; and as whatever causes an abscess near the *anus* almost always causes *fistula in ano*, or *fistula in recto*, the importance of getting rid of *thrombotic* piles as soon as possible is very obvious.

Treatment. — This is easy and painless, and always successful. An assistant directs a spray of *chloride of ethyl* upon the tumor for five or six seconds; it turns white, the hoar-frost spreading all over it; a small knife with a double edge is then passed through it in its longest direction, the cutting being painless; the round and firm clot bursts out quickly as a general thing, but if it does not it is scooped out with a small, spoonlike instrument called a *curette*; and that is really the end of the trouble, as the wound heals within a few days. There is no bleeding, and no after treatment is necessary, as the writer has rarely known another clot to form in the sack after it has been opened in this way.

CASE XVII. (Thrombotic Piles.)

Mrs. Emma Smith, Waltham, Mass., a lady whose general health was good, called at the Boston Clinic in November, 1896, stating that she had protruding piles. She was having considerable pain, and was in mortal dread of some terrible surgical operation. She was placed upon the table on her left side with her face to the wall, and two large thrombotic tumors were found near the *anus*.

She was frightened at the suggestion of a knife operation, as people usually are, but when assured that it would

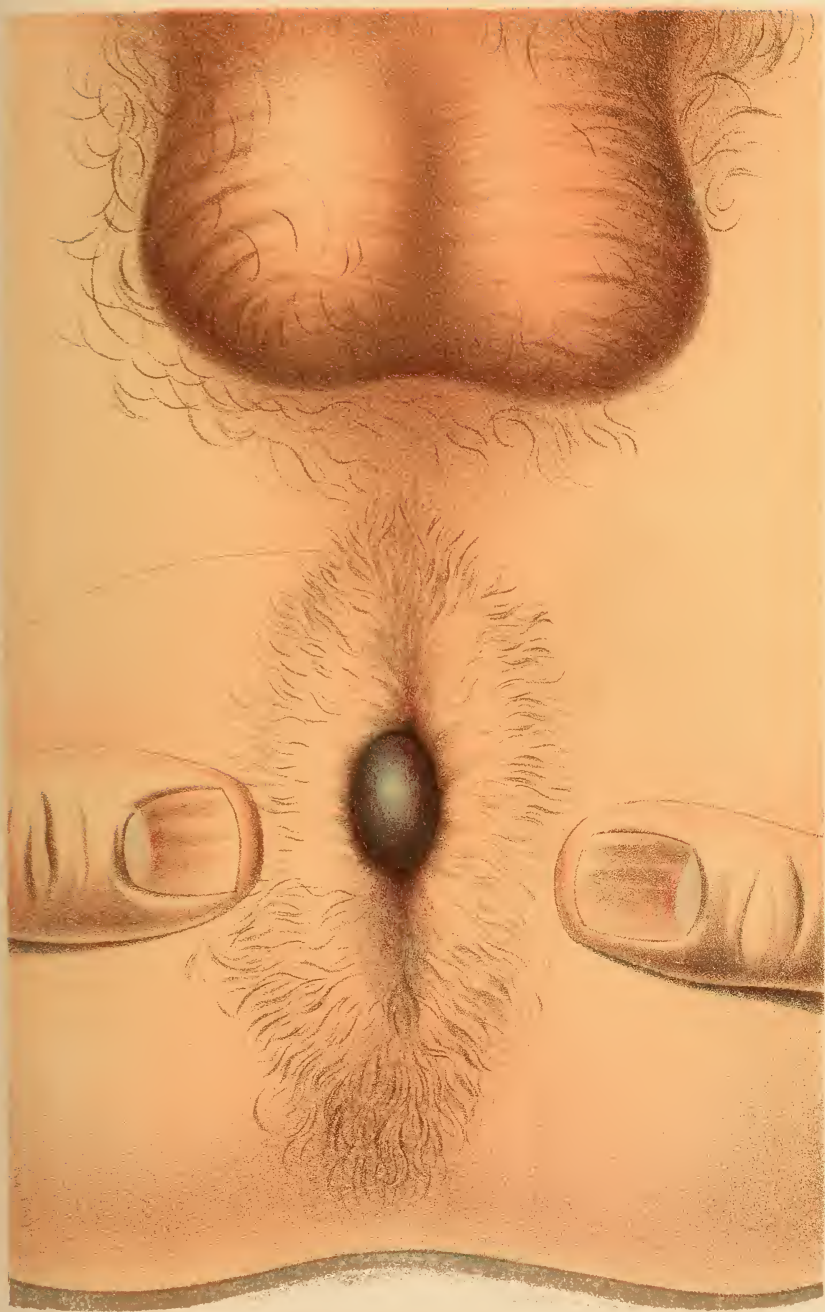


PLATE V-THROMBOTIC_PILES

be painless and almost bloodless, she decided to have the tumors removed. A spray of the chloride of ethyl was turned upon the largest one for a few seconds; it turned white; a double-edged knife was passed through it; the clot popped out instantly; was placed upon a sheet of white paper and shown to the patient, who laughed, and said the operation was simply *fun*. The other one was removed in the same way; the relief from suffering was instantaneous; and the openings healed within two or three days.

CASE XVIII. (Thrombotic Piles.)

Senator F——, of Maine, arrived at the Boston Clinic in November, 1897, and was suffering with three thrombotic pile tumors, one of them being very large. Their cause and nature were fully explained to him; he was told that they were not *really* piles; but were clots of blood under the skin; that their removal would be painless; the bleeding would be limited to a few drops; and the cure would be perfect. A spray of the chloride of ethyl was played upon the largest one; it turned white in a few seconds; was opened in its longest direction with a double-edged knife; the clot, as large as a small cherry, was lifted out with a *curette*, the operation from first to last being painless. The others were removed in the same way before he left the table, and he went home within a few days perfectly well.

CASE XIX. (Thrombotic Piles.)

A. W. Fulton, merchant, Walpole, Mass., who had been cured of a bad *fistula in ano* five years before at the Boston Clinic, applied to be examined again in the fall of 1897, stating that he feared he had another fistula. An examination revealed a large *thrombotic* pile tumor that was tender

and somewhat inflamed. A spray of the chloride of ethyl was directed upon it for a few seconds; it turned white; was opened freely with the double-edged knife; and the clot was scooped out. He laughed over the painless operation and was well in forty-eight hours. It is more than probable that his fistula, causing him years of suffering, started from a *thrombotic* pile very similar to this one.

CUTANEOUS PILES.

THESE are not piles at all, but are merely enlarged and multiplied folds of skin at the edge of the *anus*. To put the name in the plainest English, they are skin-piles. As a general thing they are not painful nor even tender, but sometimes they become so. They are always a source of uncleanliness, and, for this reason, if no other, are a constant annoyance, and should be removed.

Causes.— They are generally caused by severe constipation and frequent attacks of piles.

Treatment.— It is best to avoid removing these skin-tumors when they are inflamed and swollen, as it is hard, when they are in such condition, to tell how much of each one should be taken off. The way in which the writer removes these so-called tumors at the Boston Clinic is as follows: An assistant directs a spray of ethyl chloride upon the one to be removed; it turns white with frost in from five to ten seconds; as soon as every part of it is whitened in this way, the curved scissors are closed upon it, cutting it off. The scissors are not felt; it only bleeds a few drops; no after treatment is necessary; and the small wound soon heals. In order to avoid any smarting from the chloride of ethyl

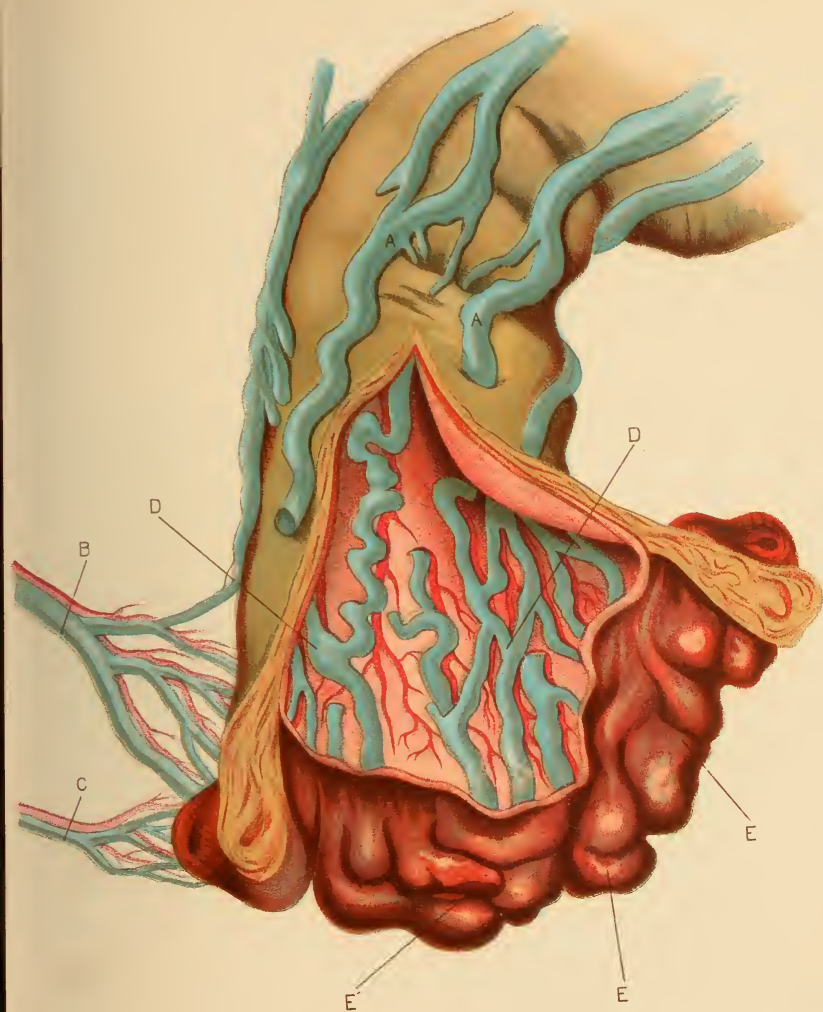


PLATE VI.-SHOWING THE PATHOLOGY OF INTERNAL HEMORRHOIDS.

A. Superior Hemorrhoidal Veins.

B. Middle " " " "

C. Inferior " " " "

D. Hemorrhoidal Plexus by removal of the Mucous Membrane.

E. Protruding Internal Hemorrhoids covered by the Mucous Membrane.

as it melts, the wound, in all cases, should be covered with carbolized vaseline as soon as possible after the cutting is done, as this protects it from the drug, and is also a valuable antiseptic.

INTERNAL PILES.

THESE are a hundred fold more serious and distressing than the *external* variety. They consist of a network of enlarged and multiplied blood-vessels; are covered by mucous membrane instead of skin; are of a red, or bluish-red color; and from the time they first appear until they are destroyed by the proper treatment, or until the patient dies, from some cause, they generally maintain a steady growth. Plate VI affords a beautiful view of the *anus* and lower part of the *rectum*. In this drawing the muscles that close the anus are cut through; the *rectum* is opened for a few inches; part of its mucous membrane is cut away; and the pile veins are uncovered. The dark part at the lower border of the drawing represents the "pile-bearing inch," or inch and a half, and piles are never found above its upper margin. When the anus is closed the numerous pile tumors observed in the pile-bearing inch and a half are crowded together; they completely fill the passage; and there is no chance for the stool to escape until they are all forced outside and become *protruding piles*.

Symptoms.—In the majority of cases, the first symptom of piles observed by the patient, is bleeding from the bowels when he is at stool. This may occur occasionally, for two or three years, the bleeding gradually becoming more frequent and profuse: at first the piles are small;

protrude but little; and return without being pressed back by the hand; but as time goes on they become larger, their growth being regular, like that of a young animal; and finally they get so large, they have to be forced back with the fingers, after each movement of the bowels; they still continue to enlarge; bleeding may be more and more profuse; heavy, agonizing pains are liable to be frequent; there is often a burning sensation in the *anus*; the patient may be so pale, weak, and emaciated from loss of blood, as to be a complete invalid; and meanwhile the piles get larger and larger, with greater and greater tendencies to protrude, until they come down a dozen, or even twenty times per day.

Plate VII shows the exact appearance of an average case of protruding and bleeding piles. It is important for every one to know that *internal piles*, when once fairly started, have a regular growth, like a tree or plant; and that the increase in size and number of blood-vessels of a pile tumor is in direct proportion to its enlargement; that the bleeding increases in severity and frequency with the increasing age of the piles and patient; and that internal piles, as a rule, never get their full growth, but keep getting larger and larger as long as a person lives. The experience of almost every one who has had piles for thirty, forty, fifty, or sixty years, is about the same as that of the German who said: "So much older I gets, so much bigger grows, by Jesus Christ, my piles."

Treatment. — The palliative treatment, so far as salves and ointments are concerned, amounts to but little; but as piles are caused mainly by constipation or the abuse of physic, it is evident that any changed conditions in the life and habits of the patient that will cause regular, easy, and

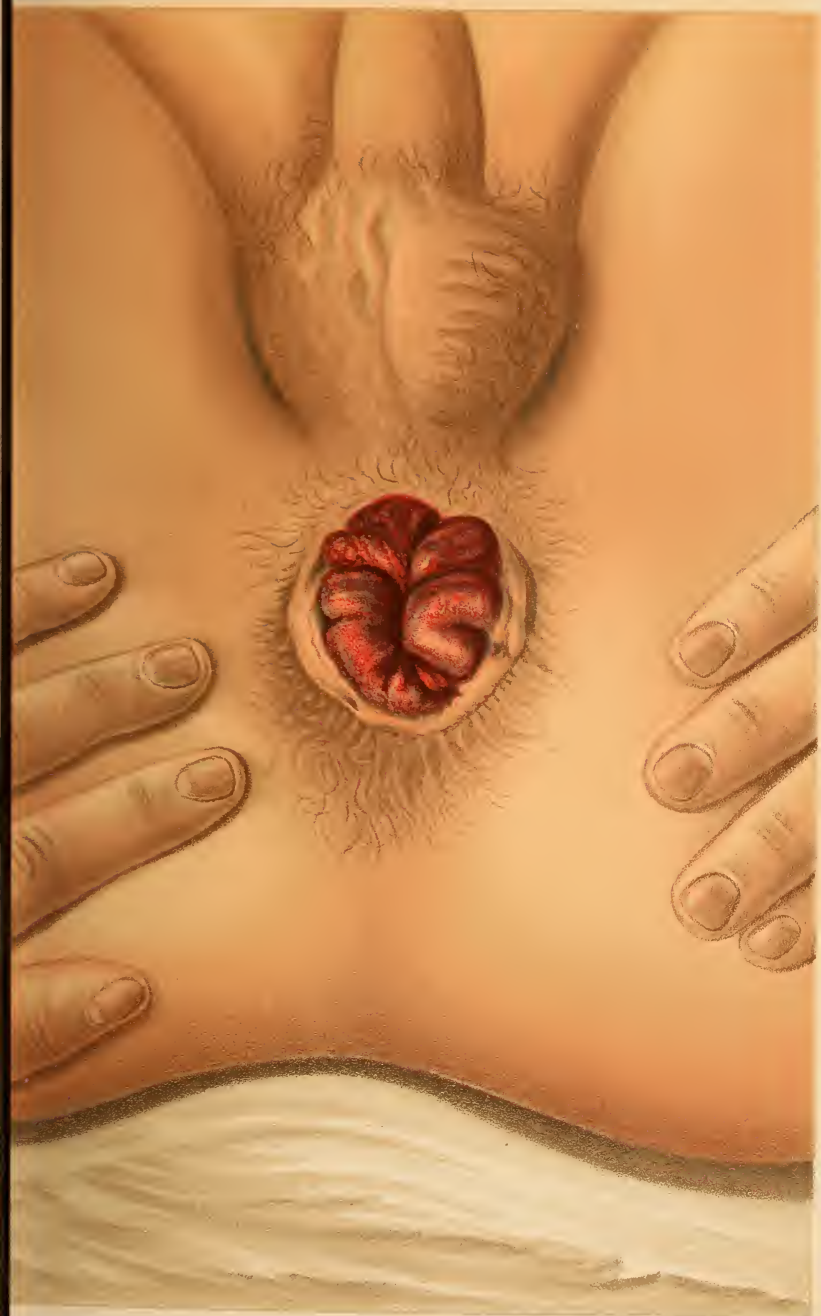


PLATE VII.-PROTRUDED HEMORRHOIDS WITH PROLAPSED
MUCOUS MEMBRANE.

natural movements of the bowels will have a strong tendency to retard the growth of the pile tumors. The palliative treatment, therefore, is entirely hygienic, and consists in the absolute avoidance of physic; leaving off meats of every kind; living upon fruits and vegetables; and always, except when the stools are soft and the bowels move easily, using injections of warm water before going to the closet. For further information the reader is referred to the chapter "How to Prevent Piles, Fistula, and Fissure," and assured that the advice therein given, if carefully followed, will not only prevent those diseases, but will cure a great many cases of piles.

There is scarcely anything easier and quicker than the total destruction and permanent cure of piles; and to remove them with the knife, the clamp, and scissors, or with the ligature, is as cruel as it is unnecessary; and is like using a sledge-hammer to drive a tack.

The modern treatment for destroying protruding piles; bleeding piles that never show themselves on the outside; and every form of the disease that can be called a pile tumor, is the one discovered by the author away back in the seventies, and has been used by him in thousands of cases. It consists in touching the pile structure with a drug that renders it insensible for a few minutes; then piercing it with a hypodermic needle, that is painless; and injecting it, from bottom to top, with a solution that causes no pain, and yet is strong enough to destroy the blood-vessels of the tumor.

As soon as a pile is treated in this way it begins to perish, as the supply of blood necessary to its life and growth is cut off. By the second day it has a dark, mottled appearance; by the fourth it is black; and by

the seventh or eighth day it has fallen off and disappeared forever.

It is the total destruction of the entire pile sack, with all its enlarged and manifold blood-vessels, that makes the injection method, if properly used, absolutely perfect; and nothing can be said truer than this: *It is the only treatment or operation that will destroy every part of a pile tumor without including some of the adjacent parts; it is the only bloodless and painless method; the only one that will permit patients to work or attend to business while being cured; it is the only kind of treatment that is always successful; the only kind that neither requires ether nor chloroform; and the only kind that is always free from danger.* The hypodermic syringe is now used in ninety-five per cent of all the cases that are cured; the length of time required to effect a perfect cure is from one to three weeks; and the patients only have to be treated once per week.

Plate VIII shows most beautifully and accurately the kind of operations that are performed in almost all the hospitals; and the kind that are still taught and advised in most of the medical colleges; but, fortunately for mankind, most of the rectal specialists have entirely abandoned such torturing and dangerous methods. The facts favoring the universal employment of the hypodermic syringe instead of the clamp, scissors, and cautery, as shown in the plate, are as follows:—

First. The treatment with the hypodermic is almost, if not entirely painless.

Second. Neither ether nor chloroform is ever required.

Third. Patients are neither confined to bed nor room during treatment, but can work or attend to their usual business affairs.



PLATE VIII.-CLAMP ADJUSTED AND SCISSORS
IN POSITION FOR EXCISION OF HEMORRHOIDS.

Fourth. The injection method never fails when properly used, as an experienced surgeon always fills the entire pile sack with the solution, and the whole of the diseased structure is therefore destroyed.

Fifth. While it destroys every part of a pile tumor, it never injures the adjacent flesh.

Sixth. Internal piles are long, as shown in Fig. 6, and it is only the lower portions of such piles that can be removed by the clamp and scissors, while the hypodermic needle is passed up far enough to fill the pile sack from bottom to top and destroy it all, including the network of enlarged blood-vessels.

Seventh. Piles cured in this way rarely, if ever, return, as the whole of the tumors, and not merely the lower parts, are destroyed.

Eighth. The hypodermic method is always free from danger.

The objections to the *knife*; to the *ligature*; and to the *clamp and scissors*, with the *white-hot iron*; are as follows:—

First. All of these methods are intensely severe; they cause a great deal of suffering; are more or less dangerous; and confine patients to bed for weeks.

Second. In half the cases applying for treatment at the Boston Clinic, the piles don't come down at all, but have to be found and treated through the aid of the speculum illuminated with an electric lamp, and it is impossible for such piles to be reached and destroyed by the clamp and scissors or any similar methods.

Third. As piles are usually long, as shown in Fig. 6, it is only their lower portions that can be brought down low enough to be grasped by the clamp and cut off with the scissors, and for this reason the cure is imperfect.

Fourth. The cutting methods are usually attempted by "omnibus" surgeons — surgeons for everything — who have had but limited experience with diseases of the rectum; and their operations often fail, rendering other operative measures, with consequent suffering and loss of time, necessary.

Fifth. Stricture of the *anus*, causing the movements of the bowels to be painful and difficult; injuries to the muscles through which the patient loses the power to control his bowels, and is forced to wear a napkin; and traumatic fissures — painful ulcers more distressing than piles themselves — are some of the deplorable misfortunes resulting from the clamp and scissors.

Sixth. The greatest and most important objection to the knife, ligature, or scissors, is that people will not submit to such methods; that ninety-nine per cent of the human race will carry their afflictions with them to the grave in preference to undergoing such frightful operations, with all the pain, confinement, and dangers they involve. It is a knowledge of these horrible and difficult plans of treating diseases that can be cured by mild and painless measures, that has intimidated the people and causes them to regard with mortal dread any means whatever for the cure of piles, fistula, or fissure; and it is the accounts of the bloody and unfortunate operations reaching the eyes and ears of the people through the various hospital reports that cause them to be seized with fear when considering any treatment for diseases of the rectum. For these reasons it has been a hard and time-consuming task to teach thousands upon thousands who are suffering with such diseases that scientific unfoldments have given the world painless remedies, and painless appliances for the

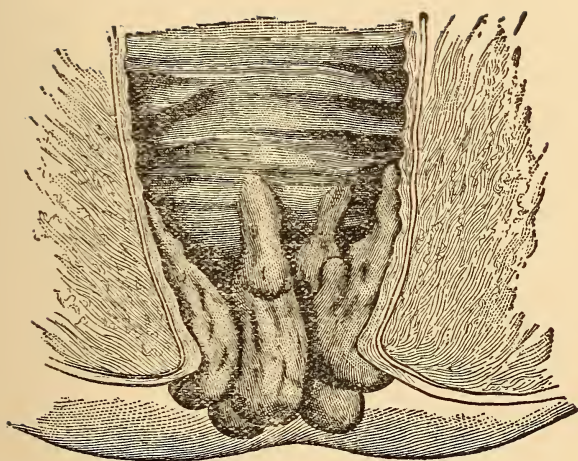


FIG. 5.
Showing Protruding Piles and their High Attachment.

cure of piles of every variety; and that the progressive physicians and surgeons of the day are using them.

ITCHING PILES.

OTHER names: *pruritus ani*; itching of the anus; *eczema* of the anus.

This is the most aggravating; the most sleep-disturbing; the most rest-preventing; and the most profanity-excusing affliction that mankind has ever known; and unless its causes are understood it is almost impossible to cure it.

Causes. — The predisposing cause is heredity; and any one with an inherited tendency to *eczema*, *tetter*, *salt-rheum*, or *scall* — all different names for the same disease — is especially liable to have itching piles; and it is doubtful if piles would cause itching at all among those in whom no such hereditary tendencies exist.

The exciting causes of the disease are, piles; salt-rheum; constipation and straining at stool; alcoholic liquors; the excessive use of tea and coffee; and pinworms.

Many cases are found in which there is no appearance of piles; cases in which the lighted speculum, when inserted into the bowel, reveals nothing like them; yet in the vast majority of patients that have been treated at the Boston Clinic, piles were found; and in many instances the itching ceased forever when the pile tumors were destroyed.

Symptoms. — The disease comes on gradually, as a general thing; the itching usually begins at night soon after the person is warm in bed; may only be felt occasionally for months; but its tendency, as time goes

on, is to become more frequent, and also more severe; and, sooner or later, the itching gets to be an every-night affliction; as it gets worse and worse the patient often becomes worn out for want of rest, and in a half-awake and half-asleep condition spends the whole night in scratching and breaking one of the commandments.

Treatment. — Piles of every kind should be destroyed as soon as possible, if they exist, and no one can be cured until this is done. If the skin around the anus is whiter than that of other parts, and has the appearance of being bleached by a poultice, it shows that it is bathed and macerated in a self-secreting moisture; and that the moist discharge from the skin is caused by salt-rheum. The best treatment in such a case—and the one that will always cure the salt-rheum and stop the itching if properly carried out, is the following:—

Corrosive sublimate, six grains,

Water, one pint.

Mix and take a teaspoonful before each meal.

At the same time the following should be used every night externally:—

Corrosive sublimate, eight grains,

Brandy, eight ounces.

Mix and apply every night to the parts affected, using a small sponge for the purpose. In order to hasten the cure it is sometimes desirable to use the wash in the morning also. The skin around the *anus* should be kept perfectly clean with warm water and soap; and as the disease is very chronic and stubborn in its nature, the treatment, both internally and externally, should be continued for several months.

The disease that always causes the moist discharge;

that is the main cause of the terrible itching; and that is known, unfortunately, by four names instead of one; is always cured, finally, by this treatment; but it must be remembered that all kinds of intoxicating liquors aggravate the itching, and also aggravate the doctor who is treating the case; and that it is next to impossible to cure a bad case if the patient is determined to drink whiskey, brandy, wine, gin, rum, beer, or intoxicants of any kind.

If the trouble is caused by threadworms the itching is generally in the *anus* or very near it, rarely extending to adjacent parts as it does in other cases.

For this variety take the following:—

Santonine, fifteen grains,

Calomel, five grains.

Mix and divide into five powders and take a powder every three hours, commencing early in the morning. When all are taken they should be worked off with a full dose of castor oil. This treatment is calculated to get rid of all the worms, but fearing some might be secreted in the folds of the rectum it is well to inject the following:—

Carbolic acid, three drachms,

Water, one pint.

Mix and inject it all into the rectum at once, if it will hold that much, and after two or three minutes it should be forced out, and about a pint of warm water injected to rinse out the lower bowel and get rid of all the drug. The worms, if any, will be killed.

There is a form of this disease that has a very obvious cause, when properly understood, but the real cause is very liable to be overlooked. In this variety there is no appearance of salt-rheum—none whatever—and the

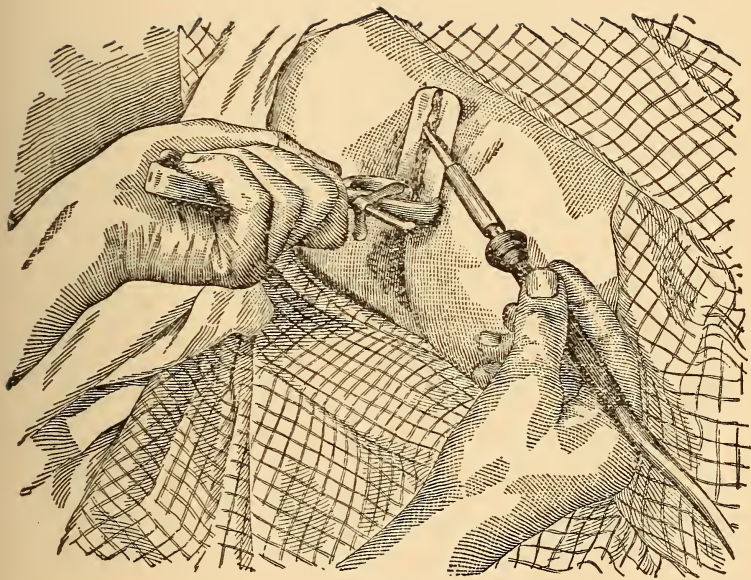


FIG. 6.

Showing the Hospital Methods of Burning the Stump with a Hot Iron after Piles are removed with Scissors.

lighted speculum when introduced so as to explore every side of the rectum, reveals no piles, and yet there are piles, and they cause the itching. Very small, bluish tumors, not larger than a pea, are found in the edge of the anus, and their covering is so thin and delicate that it is hard to tell whether it is skin or mucous membrane. As soon as they are destroyed the itching entirely ceases.

CASE XX. (Itching Piles.)

Mr. D. applied for treatment at the Boston Clinic in January, 1893, and had been terribly distressed with the itching for ten years; had tried a multiplicity of remedies; and had been treated by half a dozen doctors, including several rectal specialists; and had received no permanent benefit. There was no evidence of salt-rheum; nothing to indicate the flow of moisture characteristic of that disease; and there seemed to be no piles. At his second visit, however, I discovered the little blue lumps that were less than an average pea, and as I could find nothing else to account for the terrible and long-continued itching, I determined to destroy them.

They were too small and undefined to be treated by the hypodermic injections, and I therefore treated them with a paste made of fresh lime, one ounce; caustic potash, one half ounce; absolute alcohol, a sufficient quantity to make a paste as soft as vaseline. In order to avoid the terrible pain that this paste causes, the tumors were touched with the strongest carbolic acid; turned perfectly white: and then the paste was applied. Each tumor turned black as soon as touched by the paste; the latter was wiped off instantly with a soft cloth, and olive oil put on to stop the effect of the paste. Some four or five of the little tumors were treated in this way, and the itching never occurred

again. The cure was perfect. The destruction was very limited, being confined to a network of small vessels just beneath the thin skin in the edge of the *anus*, and the patient was well within ten days.

If the carbolic acid as here directed is applied freely; the paste rubbed off in two seconds; and the olive oil put on immediately; there will be no pain to amount to anything.

CASE XXI. (Itching Piles.)

Dr. J. E. Patrick, 74 Boylston St., Boston, applied for treatment at the Boston Clinic in January, 1893, and was terribly afflicted with itching piles. There were five or six pile tumors of considerable size and all inclined to protrude. I operated upon three of them on Friday morning, using the hypodermic syringe; and on the following Monday I operated on two or three more, destroying all of them within three days. The itching that had lasted for years entirely ceased after the second operation, and he has been free from trouble ever since.

CASE XXII. (Itching Piles.)

Mr. H., aged 40; fair complexion with beautiful skin; applied for treatment at the Boston Clinic June, 1897. He stated that he had had itching piles for several years; that every effort to get any permanent benefit had been a failure; and that the trouble had increased until life had become a burden. An examination with the lighted rectal speculum revealed no piles whatever; the skin was broken out with an eruption extending several inches in every direction from the anus; there was a bleached appearance of the skin surrounding the anal orifice, due to a gradual flow of moisture; and the poor fellow had almost torn the skin to pieces with his finger nails. This was a pure and

simple case of salt-rheum except that it had been aggravated by intoxicating liquors. The following was given internally for two months :—

Corrosive sublimate, six grains,
Water, one pint.

Mix and take a teaspoonful before each meal. At the same time the following mixture was applied externally :—

Corrosive sublimate, eight grains,
Brandy, one half pint.

Mix and apply night and morning with a small sponge, refraining from the use of ointments of every kind and keeping the parts clean with soap and water. Within five or six weeks he was entirely well, the skin being free from eruption, and also free from itching.

CASE XXIII. (Internal and Itching Piles.)

Mrs. Emma H. Arnold, music teacher, Linden, Mass., entered the Boston Clinic for treatment in January, 1893. She had been suffering for years from internal piles, and also from terrible itching. The Daily rectal speculum, carrying a small electric lamp in its wall, was introduced. When the piles were found they were destroyed by filling each pile sack with a solution of *phenic acid*, a hypodermic syringe with a very long needle being used for the purpose. The operations with the syringe were painless, as they usually are, and the piles were all destroyed in two or three weeks.

To get rid of the *eczema* around the *anus* the following was given :—

Corrosive sublimate, six grains,
Water, one pint.

Mix and take a teaspoonful before each meal. At the same time the following was used externally :—

Corrosive sublimate, eight grains,
Brandy, eight ounces.

Mix and apply night and morning to the parts affected, using a small sponge for the purpose. She was entirely well within a month and has had no return of the piles nor the itching.

CASE XXIV. (Internal Piles.)

George E. Messer, 73 Haverhill St., Boston, age 56, entered the Boston Clinic January, 1893, with internal piles from which he had suffered for many years. The pile tumors were easily found by means of the author's speculum, which is always lighted with a tiny electric lamp; a hypodermic syringe having a long needle was used; a pile sack was filled with a solution of *phenic acid*, the operation being painless; two other tumors were treated in the same way on the corresponding day of the following week, and so on until all were destroyed. He was entirely cured in three weeks and attended to his usual business during the treatment.

CASE XXV. (Protruding Piles. A terribly bad case.)

Alba Woods, engineer, North Lunbridge, Vt., age 49, entered the Boston Clinic as a patient in January, 1893, and was suffering from the worst form of protruding piles imaginable. The tumors were extremely large, and in order to keep them from coming down he was compelled to wear a pile truss that was held in position by straps over each shoulder, like suspenders. I used a hypodermic syringe and commenced the treatment by filling one of the large tumors with a solution of *phenic acid*, the operation being painless; and on the corresponding day of the following week two other tumors were treated in exactly the same way, and so on until all were destroyed, the cure

being completed within three or four weeks. He attended to his usual business while being cured.

CASE XXVI. (Protruding and Bleeding Piles.)

Charles F. Tenney, night watchman at the State House, Boston, age 50, entered the Boston Clinic as a patient in April, 1893. He had large protruding piles from which he had suffered for fifteen years or more. I used a hypodermic syringe and filled two of the pile sacks with a solution of *phenic acid* which caused their total destruction. On the same day of the following week I treated two other tumors in the same way; he was entirely cured within two or three weeks, all the operations being painless, and he attended to his usual duties.

CASE XXVII. (Protruding Piles.)

Samuel Vaughan, letter carrier, 2161 Washington St., Boston, age 56, entered the Boston Clinic in April, 1893, with very bad protruding piles from which he had suffered for twenty-five years. Although they were exceedingly large, I destroyed them all in two or three treatments, and he has been free from the disease ever since. A hypodermic was used; two pile sacks were filled with a solution of *phenic acid*, which was painless; and on the same day of the next week two other piles were treated in the same way, and so on until all were destroyed. He attended to his business during the treatment.

CASE XXVIII. (Protruding Piles.)

Professor Alex. Mirault, 486 Fletcher St., Lowell, Mass. age 49, entered the Boston Clinic in May, 1893, with large, protruding piles, from which he had suffered for more than twenty years. I used a hypodermic syringe and filled two of the pile tumors with a solution of *phenic acid*, the operation being painless. In one week from that day I treated

the rest of the tumors the same way, and he was well within two weeks from the time he first entered the clinic.

CASE XXIX. (Protruding Piles.)

Mrs. Helen Broughton, 103 Trenton St., East Boston, became a patient in the Boston Clinic in June, 1893, and had suffered with protruding and bleeding piles for more than twenty years. The tumors were large and numerous. I used a hypodermic syringe and filled one of the pile sacks with a solution of *phenic acid*, the operation being painless, as usual; and on the same day of the next week I treated another, and so on until all were destroyed. She attended to her usual duties all the time and has been free from the trouble ever since.

CASE XXX. (Bleeding Piles. A terrible case.)

H. C. Thrasher, chairmaker, Erving, Mass., age 50, came to the Boston Clinic in October, 1894, and was the worst case of bleeding piles I had ever seen. Though in good flesh, he was pale as a spook from loss of blood, and was very weak. The piles were of immense size, and blood spurted in several directions from one of the large tumors. As I wished to stop the terrible flow of blood I injected six drops of solution of *subsulphate of iron* into the tumor that was spurting blood all over the table. It stopped the bleeding instantly and destroyed the entire tumor within a week. On the same day of the following week I destroyed two large tumors by filling the pile sacks with *phenic acid* solution, using a hypodermic syringe, and the patient was entirely cured within three or four weeks. The operations were all painless except when the solution of iron was injected.

CASE XXXI. (Protruding Piles. A very bad case.)

Robert Butterworth, 11 South Whipple St., Lowell,

Mass., entered the Boston Clinic in November, 1894, and was suffering with protruding and bleeding piles of the worst form. The tumors had been growing for twenty-five years, and were of immense size. I operated upon two of them immediately with a hypodermic syringe, filling the pile sacks with a solution of *phenic acid*. They were entirely destroyed within a week; others were treated in the same way on the corresponding day of the next week, and so on until all were destroyed. He was cured within three weeks; all the operations were painless; he attended to business while being cured; and is now free from the disease.

CASE XXXII. (Internal Piles with Bleeding.)

Frank P. Piper, Laconia, N. H., came to the Boston Clinic in 1895, with a number of painful pile tumors that had troubled him for several years. I used the hypodermic syringe and filled two of the pile sacks with a solution of *phenic acid*; the operations were painless; and the tumors were destroyed within a week. The others were treated in the same way, two tumors being destroyed each week; and he was thoroughly cured in three weeks, attending to his usual business while being cured.

CASE XXXIII. (Protruding Piles. Very bad.)

Mrs. Emma F. Hill, 30 Church St., Watertown, Mass., came to the Boston Clinic in January, 1897, with protruding and bleeding piles in an aggravated form, the tumors being very large. I used a hypodermic syringe and filled one of the pile sacks with the solution of *phenic acid*, the operation being painless. The other pile tumors were destroyed in the same way, two being treated each week until all were destroyed. She attended to her usual duties during the treatment and is now free from the disease.

CASE XXXIV. (Protruding Piles.)

Mrs. D. C. Elliott, Penacook, N. H., came to the Boston Clinic in April, 1897, with protruding piles of many years' duration. She was in a hurry to return home, and I treated all the piles she had before she left the table. I used a hypodermic, filling every pile sack with a solution of *phenic acid*; the operations were almost painless and she was entirely well within ten days.

CASE XXXV. (Protruding Piles.)

Edward Griffith, banker, 35 Mount Vernon St., Boston, Mass., age 49, entered the Boston Clinic in July, 1898. He had been suffering for many years with protruding piles, the tumors being large and very much inclined to protrude. Sometimes they would come down a dozen times per day and have to be pushed back. I immediately treated two of them with a hypodermic syringe, filling each pile sack with a solution of *phenic acid*, the operations being painless. The other tumors were treated in the same way, two being destroyed each week, and he was permanently cured within three weeks. He attended to business while being cured.

HOW THE PAINLESS TREATMENT WAS
DISCOVERED.

IN the early seventies I was practising medicine and surgery in Salina, Kansas. A child was brought to my office with a purple tumor upon its right cheek, and the parents wanted it removed, if possible, without leaving any scar. I knew of no way in which to get rid of it except to cut it out with the knife, and although it was

not larger than a small cherry, I knew the knife operation, at best, would leave a scar. I consulted a new work on surgery by S. D. Gross, and found a beautiful description of the tumor that was disfiguring the cheek. Professor Gross advised the removal of all such tumors by injecting into them a few drops of *subsulphate* of iron, known as Monsel's solution. I was assured by Gross that such treatment was free from danger; and that the tumors would be destroyed within a week, leaving but little, if any scar. This was called a *venous* tumor by Gross; looked like a venus-pile tumor; and like a pile, consisted of a network of blood-vessels. I pushed a hypodermic needle into the centre of the tumor and forced out about four drops of the iron solution. The structure immediately increased in size a little; became harder; and I feared I had injected too much of the drug; but after the patient recovered from the chloroform there was no distress to speak of. The tumor was entirely gone within a week; the sound flesh was uninjured; and the little girl's face was not disfigured at all by the operation. Every trace of the tumor was removed.

This experience led me to think seriously of trying the same treatment upon a case of piles, my principal encouragement being the similarity of the two in appearance and structure. A few months later a man came into the office with a protruding pile tumor that had been coming down frequently and causing him a great deal of annoyance.

Of course I felt that I was going upon untrodden and somewhat dangerous ground, but all the reason I could exercise favored the idea of injecting into the pile tumor the same kind of solution that had given such perfect satisfaction in

destroying the tumor upon the face, and I decided to try it. I injected six drops of the iron solution into the large pile tumor, and it caused severe smarting pain for about fifteen minutes. When the smarting ceased there was but little if any pain left, and the patient attended to his usual business on the following day. The pile was entirely destroyed within a week. I saw at once that the success of the treatment depended upon a beautiful principle, namely: The coagulation of the blood and destruction of every blood-vessel in the pile sack, and felt sure that it would always succeed. *It always has.* I realized that I had made a great and valuable discovery; that millions would rejoice to learn of such a quick and bloodless way in which to get rid of their afflictions; and that the old torturing methods would be abandoned forever. A great many other cases were cured by injecting the iron solution into the pile tumors. My brother, Dr. S. J. Daily, who was practising with me, operated upon many cases; the treatment was always a perfect success; and it was through this discovery that he and I both became specialists in Diseases of the Rectum. He established himself in Kansas City, and the Governor of Kansas was one of his distinguished patients to be cured by the new method. I opened offices in Cincinnati.

There never has been, and there never can be, a more thorough treatment for piles than spurting a few drops of *subsulphate* of iron into the pile sack, as a pile cannot live a minute after it is treated in this way. When, in 1872, I was told by S. D. Gross, in his voluminous work on surgery, to destroy the unsightly tumor upon the child's cheek by injecting it with the iron solution, a soul-thrilling thought entered my brain, and I exclaimed: "Great heavens! *That treatment will cure every case of piles on earth.*"

After an experience of a few months, in which I used the iron treatment about twenty times, I found I could avoid almost all the smarting pain the iron solution gave if I injected a third of a grain of morphine into the arm a few minutes before each operation.

The iron solution is superior in some respects to every other method of treatment, the only objection to its use being the smarting pain that lasts for fifteen minutes after each operation. Its advantages over other methods by injection are as follows:—

First. If a pile tumor is spurting blood in every direction, it stops the bleeding instantly and forever.

Second. The solution destroys all the blood-vessels from the bottom to the top of the pile tumor, but not being a caustic, it only destroys enough of the pile sack to allow its contents to escape, the opening in the mucous membrane being comparatively small.

Third. Nothing can be more thorough than its action in destroying the pile veins and preventing a return of the disease.

I found in practice, however, that the fifteen minutes of pain that always followed each operation was a serious objection to the iron treatment; that many persons were opposed to the use of morphine in any way; that some were frightened when told it was necessary; and that the pain was a constant source of trouble and anxiety. This led me once more into the realm of investigation and discovery; and after a year or more of study, research, and experimenting, I worked out and perfected the painless treatment that I have used ever since, and that I have employed almost wholly since opening the Boston Clinic in 1892.

Dr. Milton W. Mitchell, of Jacksonville, Ill., also commenced using the hypodermic syringe in the early seventies, and made a business of curing piles in that way, but what drug or solution he injected I do not know, as his method has never been published that I am aware of.

From 1875 to 1879 I did an immense business in rectal surgery at Youngstown, Ohio, and had a clinic there in which I taught a great many doctors the new and painless methods of operating upon hemorrhoids; and it was probably in this way that a man by the name of Brinkerhoff, learned the method as I used it at that time. He travelled over the United States and sold the discovery to a great many doctors, and the formula that he gave them is known to-day as the "Brinkerhoff treatment." It is quite severe as compared with my present treatment.

HOW TO PREVENT PILES, FISTULA, AND FISSURE.

It is highly probable that ninety per cent of all the cases of piles; a very large per cent of the cases of *fistula in ano* and *fistula in recto*; and at least ninety-nine per cent of the cases of *anal fissures* are caused by constipation and severe straining at stool; and therefore, any person suffering from constipation in an aggravated form is warranted in making many sacrifices in order to get rid of it, as it is almost sure, sooner or later, to develop piles and other troubles.

The causes of constipation are very obvious; and unless they are studied and avoided by the patient no treatment can be successful. The disease, if it is a disease, is caused

in almost all cases by the use of food that is so highly nutritious that but little of it is necessary to nourish the body ; and as such food only occupies a very small part of the intestinal canal — frequently not more than one-tenth of it — the bowels have scarcely anything to act upon.

The intestines being from twenty-five to thirty feet long, are capable, when the stomach is included, of holding many pounds of food and liquid ; and if the amount habitually taken by a person is sparingly nutritious he is compelled to eat enough of it during the three meals per day to keep his bowels pretty well filled ; and when stimulated throughout their entire course by the presence of fruits and vegetables in abundance — articles of great volume and little nutrition — they are kept normally energetic in their muscular action ; their secretions are correspondingly healthy and abundant, and the bowels feel, as it were, that they have something to do ; and when a diet of fruits and vegetables is substituted for one with meats, they awake from months or years of torpor ; their bountiful secretions are mixed with the fully digested food ; the whole mass of refuse, soft as soft dough, easily slips by the numerous curves in its downward course to the rectum ; arrives every morning at that discharging depot ; and as the stools are always *soft* and *wet* instead of *dry* and *hard* ; *large* and *dough-like* instead of *small* and *lumpy* ; the bowels always move easily and there is scarcely anything to occasion diseases of the rectum.

CONSTIPATION.

WHEN a person is always quarrelling with his bowels for being constipated ; always coaxing them with physic ;

always hunting for something that no one has ever found, and no one ever will find — a medicine that will cure constipation — he is always a *meat-eater*.

The way in which meat causes constipation is this: Every person needs a certain amount of nutrition to nourish the body; and as soon as that amount is taken into the stomach in the form of food the appetite is satisfied. Meat is ten times more nutritious than an equal amount of fruits and vegetables; and when it is a part of the meal, as it usually is, it is the first thing eaten; it stops the hunger; but little, if any vegetables or fruits are desired; and the *volume* of the food eaten is so deplorably small that there is scarcely anything to stimulate the bowels and cause the digested food to be mixed with enough intestinal secretions to make its winding passage to the rectum easy.

Man is not a *carnivorous* animal, and therefore, is not *compelled* to eat meat; his weight, health, and vigor of body can be maintained, and his appetite for food satisfied as well without meat as with it; but in changing from a meat diet to one of fruits and vegetables there may be a craving for meat until a person adapts himself to the change, and learns the importance of eating a great deal more food. Meat is all right for persons not subject to constipation, but it aggravates and multiplies the afflictions of those who *are*.

A positive cure for constipation can be given in seven words, and here it is: *Eat no meat, eggs, cheese, nor fish*. It is unnecessary to urge people to eat a great deal of fruits and vegetables, as this becomes a necessity as soon as they cease to eat meat, eggs, cheese, and fish.

Millions of people are as constipated as an Indian-tobacco

sign unless they take physic; they have been *eating* physic for years and their bowels will not move without it. Even such desperate persons can all be cured when they fully realize that it is the *great volume* of food and drink they need, and not food that is rich in *nutritive properties*; and although they must have a given amount of *nutrition*, the more it is mixed up and diluted with materials that are *not* nutritious, the greater will be the amount of refuse to go through the bowels; the greater will be their muscular activity; the greater will be their secretions; the better will be the action of the liver and all other organs; the softer and more frequent will be the stools; the more healthful and less stupid will become the individual; and physic will never be needed.

RUPTURE.

OTHER names : hernia ; a breach.

This is a disease in which the muscles stretch or spread apart so as to allow some of the contents of the abdomen to be forced out through the abdominal wall.

The protruding parts are called a tumor ; usually include an elbow of a small intestine ; are enclosed by a sack consisting of the membranous lining of the abdominal cavity ; and the point at which the tumor is found determines the name of the *hernia*.

It is customary to divide *hernia* in two distinct ways : First, in regard to location, as *inguinal*, *femoral*, and *umbilical* ; and second, according to the condition of the protruding parts, as *reducible*, *irreducible*, and *strangulated*.

When proper pressure and manipulation with the fingers cause the tumor to disappear entirely it is called *reducible* ; when every possible effort to push the protruding parts back into the abdomen fails it is called *irreducible* ; and when the intestine and other folds are embraced so firmly by the abdominal ring through which they have slipped as to obstruct the bowels and arrest the circulation in the protruding parts it is called *strangulated*.

Causes. — The predisposing cause is man's erect position, through which the weight of the stomach and bowels is thrown upon the lower part of the abdomen.

The exciting causes are pregnancy ; hard and prolonged labor in childbirth ; straining at stool ; wrestling ; heavy lifting ; violent physical efforts of any kind ; playing on wind instruments ; and glass-blowing.

Symptoms. — A tumor, usually small at first, appears in

the region of the right or left groin, or the navel; is attended with more or less pain; the discomfort and size of the tumor are increased by coughing, sneezing, singing, blowing, or lifting; and in most cases the protruding parts yield to moderate pressure by the fingers and return to the cavity of the abdomen.

Treatment. — The palliative treatment of *hernia* consists in pushing back the protruding parts; closing the opening with a suitable truss; wearing it constantly except when the patient is in bed; avoiding all physical exertions calculated to aggravate the trouble; and, if possible, preventing the bowel from protruding again.

When pushing back the tumor it is best to have the patient on his back, and it is often of the greatest importance to elevate the hips by placing two or three pillows under them. Children must be amused or quieted so as to prevent the screams and struggles that have a provoking tendency to force the bowel out; and it may be necessary to give ether.

By keeping a child in a warm bath for fifteen or twenty minutes, the muscles often become so relaxed that the tumor easily disappears under pressure with the fingers.

THE KNIFE OPERATION.

IN *strangulated hernia*, and in cases attended with adhesions so the protruding structures cannot be pushed back, there is no remedy except the knife operation; but, fortunately, those requiring the knife are comparatively few; a very large majority of cases are reducible; the bowel can be held back by a suitable truss; and most persons are curable without cutting, with but little if any pain, and without loss of time from business.

THE INJECTION METHOD.

THE cure of rupture without a knife operation is one of the most beautiful and beneficent discoveries of this age, and consists in using a hypodermic syringe in such a way as to force a few drops of liquid into the muscular tissues surrounding the rupture; wearing a truss so as to prevent protrusion again; and repeating the injections once per week until the patient is entirely cured.

Nothing can be more rational and scientific than the principles involved in curing hernia by injections. The solution injected irritates the flesh surrounding the opening; nature sends an extra amount of blood there to repair the injury; the elements of repair carried by the blood to the seat of the rupture are the same as those that cause a wound to heal; and all the flesh in the locality of the opening becomes hard and firm, somewhat like the *scar tissue* resulting from a wound; and as such *fibrous tissue* is unyielding, protrusion is impossible, and the patient is cured.

This is the way in which ruptures are cured at the Boston Clinic, and the author feels fully warranted in saying this: *All cases in which the protruding parts can be held back by a truss can be thoroughly cured by injections, and the treatment is free from danger.*

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